THE

REVENUE REGISTER.

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VILLAGE SANITATION.

THE sanitation of villages is a subject which so deeply concerns the interest of the people, that up to this time it is a matter of surprize that no proposals have been made for general adoption by the Medico-sanitary department. The subject of Army-sanitation, theories regarding the origin or propagation of cholera, and the state of health in jails, seem to engage most of the correspondence and reports; but of the ordinary state of every village, there is no detail, or practical suggestion for improvement. This is the more remarkable when it is considered that the cause of 2,14,000 deaths in 1872, which is shown to be in the proportion of 42 per cent to all other causes, is *fever;* and jungle fevers being separated, as prevalent in peculiar localities, the characteristic of the most deadly type of fever is *typhoid*; and this is stated, in the British Army Report, in the Madras Presidency, to have been the cause of 27 admissions and 23 deaths—all other fevers, including local climatic fevers, having occasioned only 9 deaths. Enteric, or typhoid, fever was then threefold as fatal as any other fever in the British army; and this in stations where the greatest care is taken in regard to drainage, water supply, and removal of all impurities. What must be the state of native villages, where there are no such appliances; where the streets, lanes, hedges, are used as latrines; where filth reigns supreme; and where there are no hospitals, or carefully drawn up hospital returns, neither a chance of recovery, nor a record of disease!! Volumes have been written about the prevalence of cholera, fever, and small-pox; but the sanitation of villages remains as it was, and attention is only drawn to it when a plague stalks through the land. Then measures are hastily adopted when far too late; expense is incurred; reports written; and the matter slides into oblivion till aroused by a new calamity. The following is a remark of the Sanitary Commissioner of the War Office. "But enteric fever is known to be "especially connected with putrescence in "air, earth, or water; and hence this dis-"ease is more connected with causes "which admit of being controlled, than are "the others." Now, if the description of every village—without a Municipality—be known as abounding in every impurity of air, earth, and water—the air polluted by exhalations from decaying and fermenting substances—the water by want of care, and by impure earth and surface drainage—is there not a field for boundless improvement; that is, if the said pollutions are

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admitted to be causatory of the fever, and death? No doubt this state of things is not of recent origin; filthy habits point to a continuance, and the wonder is that a greater mortality is not shown. But death returns are notoriously defective; birth returns being still worse; and a considerable proportion of both is never recorded at all. The Revenue subordinates have not been awakened to the momentous importance, which attaches itself to a correct record of vitality; and even if they were, there is no compulsory legislation at present possible. The mortality may, therefore, with propriety, be set down, as exceeding what is recorded; and when such a proportion is derived from fever, the importance of the matter must be admitted. Some might argue that an excessive mortality is of use to prevent over-population; and, certainly, when there are removable causes of death, such as before noted, they chiefly affect the weakest section, the children. But this argument must be scouted; and whatever the results of over-population may be, it must be admitted to be our duty, to improve the health and efficiency and comfort of the people who pay our revenue. In this point of view, an increase of population means increase of revenue, as more land is tilled and less left waste; there is also less fluctuation in the cultivated area. Among Mahomedan rulers the phrase "*réyèt âbâd*" expressed their idea of good government—an increased agricultural population dwelling in comfort.

As yet, plans for village improvement have been nugatory, owing to their expense. Some, even large, villages have no hereditary scavengers, and many can hardly raise funds for such purposes. It becomes, therefore, a problem how to accomplish conservancy with the minimum of original, and of permanent, expense, when the Local Fund, which alone can contribute to such a scheme, is so very limited—one moiety being levied for the special purposes of roads, the other moiety to educate, vaccinate, medicate and provide for every other existing want. As everywhere, so here, in a very poor country with a large population, which it may be said only subsists, the money difficulty is the chief one. Municipal towns, with a collected population on a limited area, and with a large proportion of rich or well-to-do middle-class, are able to go to the expense of latrines and a scavenging establishment; but when you visit a village and ask where the funds are to come from, the answer is a difficult one. The only way out of the difficulty is to consider the economy of the world in which no atom is ever lost, or wasted, where the truest economy reigns and everything goes to its proper place by a change of its nature. The earth being the refuge for one class of material, and the air for the other, so by simply digging trenches for latrines and screening them, a means of avoiding surface-pollution is obtained—by burning the combustible rubbish, which would otherwise ferment, an excellent deodorizer is obtained—and by simple cinerators, and trenches of which the cost price is small, a means may be provided of the most economical description for the removal of earth-pollutions, and consequently, for the better conservancy of earth drainage. The conveyance of the street rubbish to the cinerator, in the vicinity of the trench latrine, is all that is required; and the people might surely learn to do that for themselves. Each person might be required to sweep and clean his premises, and to burn his rubbish; to visit the latrines on the calls of nature; and thus, a minimum of expense would afford the means of sanitation to a village.

SALUS POPULI.

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AN ELEPHANT HUNT AND ITS RESULTS.

On the passing of the Bill for the protection of wild elephants in October of last year, the Collector of Coimbatore addressed Government suggesting that these otherwise useless and sometimes destructive animals, should be captured for the use of Government, which was then believed to be greatly in want of elephants for commissariat purposes. This was approved; a scheme of a kedda was proposed, which met with the approbation of the Commissary-General; and Mr. Mackenzie, Inspector of Police, in the Collegal Taluk, was, on the Collector's application, put at his service for conducting this work. Mr. Mackenzie, after consulting with Ani Mantha, one of the most experienced hill-men, came to the conclusion that the best place for a kedda was in the mountainous region in the north-east part of the Coimbatore District, where the extensive jungles near the banks of the Cavery afford shelter to large herds; which, however, occasionally migrate to the south-west, and circulate over the country where they may be still undisturbed. Such herds are often met with in the long valleys leading from Hassanur to Caveripoorum. The country, it may be supposed, is very feverish in these confined valleys. The experienced hill-man or Sholigar referred to by name Ani Mantha, or "Matha of the elephants," merits description; a tall, spare, reserved man of somewhat severe aspect, not given to much talk, but essentially business-like. His original costume was probably of the "Fantee" description; he now wears the dress of the plains. Being employed by sportsmen, and being an authority on elephants, he got this name. He finds tracks and takes the sportsman up to the elephant, but after that, as the French say, he "does not remain." He once placed the writer, who was travelling through the country, in a warm corner; two bears on the right, a tiger in front coming up the Nulla, and bison on the left; the tiger jumped on to the bank, the bears disappeared, and even the bison, which was shot, did not remain, having been cleaned by vultures, while the tiger was being subsequently beaten for; only the head, skin, and marrow-bones remained, and Ani Mantha confessed he had not anticipated the loss of his dinner of beef, and the camp was not in spirits that evening. Mr. Mackenzie selected a narrow valley to the south of the Burghoor river in which he constructed a kedda. The place was about fifty miles from any large town from which supplies could be procured, and tools and other appliances, as well as labour, had to be brought from great distances. However, he managed to complete the kedda by the end of May, when he expected to lead elephants towards it. Before he had finished the kedda, a herd passed through it, and did not appear alarmed, and afterwards returned by the same way. There was some delay in the procurement of tame elephants to be ready against the capture of the wild ones, as the very large capture by Mr. Saunderson at Shamrajnugger in Mysore, in June, had necessitated the despatch of the Government elephants to that station. When however, he was supplied with the Government elephants, he sent his people to endeavour to bring down a herd from the north-east, Collegal jungles. About fifty were so moved, but as the distance was great, and the drive was slow and quiet, a great many, by twos and threes, evaded these hints to "move on." At last, sixteen of all sizes, probably a family party, were brought near to the kedda, when suspecting danger they broke back. Mr. Mackenzie managed, however, to get round

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them, and by a discharge of rockets in their rear caused them to rush forward, when they all passed into the kedda, the gate keepers of which instantly drew across the bars of the gate and they were enclosed.

The next point was to keep them in, as they rushed all about during the night, trying to get out, but were foiled at every point. Then the tame elephants entered, and in course of time, all were secured with ropes. One of the largest, a fine female, took her condition so to heart, that she never moved after the ropes were on, did not attempt to free herself, refused food and water, and, finally, dropped and died. A child-elephant of 10 days also died. The remaining fourteen were all brought out of the kedda, without damage, except one large female, which hurt its trunk so severely, that it had to be fed by the mouth; by good treatment, however, it got all right again. The captives were then marched from the inhospitable glen, to Martalli, where they could get good grass, and finally, moved on to Collegal, where the Commissariat Officer visited the herd, and selected six of the largest for Government use. Some merchants from Hydrabad, who were on their way to Ceylon to buy elephants, having heard of the capture, came to Collegal, and offered Rupees 14,000 for the six subsequently selected, and one of the rejected; so that the capture seems to have been of some value. Eight remained of smaller sizes, which will probably fetch a good price, according to size.

The difficulty of making a kedda where there was no population to work, or food to eat, was very considerable, and reflected credit on Mr. Mackenzie's management. The kedda is likely to be used again, and, if necessary, another nearer the steamy jungles, in which the elephants delight, will be constructed, so there is hope of these jungle-denizens entering the Government service. Against the loss of freedom, must be balanced the immunity from the sportsman's rifle, as well as from the guns of the native hunters, of whose destructiveness little is known, in so distant a locality, but when cases have come to light of a herd being shot down for their bones, to be utilized as coffee manure, in more accessible places, it must be considered that the Government sanction for the capture of these generally timid and inoffensive beasts is a much better way of disposing of them. The solitary male, useless and untameable, may be left as a legitimate object for the skill and daring of the sportsman, while the timid herds are placed by the Government Bill under proper protection.

X.

HER MAJESTY'S PRIVY COUNCIL.

[Bengal Case.]

Mortgage by father of property purchased for his daughter—Rights of purchaser and daughter.

A purchased an estate from B for the benefit of his minor daughter, C, and executed a bond mortgaging an 8-anna share of the property as security for payment of the purchase-money. B subsequently sued A for the money, and the Principal Sudr Ameen decreed that A was personally responsible, and should pay the money to B. Subsequently A appealed on the ground that he was not alone responsible, but that his daughter, C, should have been joined in the decree. The Court did not vary its decree in A's favour, but permitted a compromise between A and B, by which A was to be liable for only so much as could not be satisfied by the sale of his daughter's property. On C's attaining majority she applied to have the case reheard.

Held, *that the order of the Sudr Court permitting the compromise was wrong, and that the parties stand as they did by the decree of the Principal Sudr Ameen.*

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Judgment of the Lords of the Judicial Committee of the Privy Council on the appeal of Unnoda Dabee *v.* Maria Louisa Stevenson, from the High Court of Judicature at Fort William in Bengal, delivered 3rd July 1874.*

Present.

SIR JAMES W. COLVILE.
SIR MONTAGUE E. SMITH.
SIR ROBERT P. COLLIER.

THIS was an appeal from a judgment and decree of the High Court of Judicature at Fort William in Bengal, dated the 8th June 1867, on review of a decision of the late Sudr Dewanny Udalut, dated the 5th March 1857, amending a judgment and decree of the Principal Sudr Ameen of Zillah Rajshahye, dated the 12th June 1855. This suit was instituted by the husband of the appellant against Mr. Henry Gloucester French, in his individual capacity, and as guardian of his daughter, the respondent, Maria Louisa Stevenson, then M. L. French, a minor, and one Sree Bamundass Mookerjee, to recover the sum of Rupees 12,276, for principal and interest on a certain mortgage bond, dated the 23rd Aughran 1253, B. E. (1846, A. D.) The mortgage bond was, omitting formal parts, as follow :—

"To Issur Chunder Mustaffee, Zemindar.

"By Henry Gloucester French, inhabitant of Kootee, Shampore Thannah, Nattore, appertaining to Zillah Rajshahye.

"Mortgage tummasook, in the form of an ikrar, respecting mortgage of a putnee taluk executed in the year 1253, B. S. I am the guardian of Miss Maria L. French, my minor daughter. In order for the benefit of the minor, I have written my name for my minor daughter, by reason of her minority, in the putnee papers with reference to the four remaining Mouzahs, Degapotheea, Chidrogown, Ichalabaree, and Bhatpara.

"Your Zemindary of Zillah Shaool with Dehee Hurrenai Hijalee, Pergunnah Sindabajad, Zillah Rajshahye, Sudr annual jummah of which, inclusive of police (tax), is Company's Rupees 7,151-10-0, and which has been written in your name in the Collectorate of Zillah Rajshahye—that Zillah Shaool, besides Mouzahs Degapatheea, Chidrogown, Ichalabaree, and Bhatpara, being excluded, the whole of the remaining villages at an annual jummah of Rupees 10,450, and at a consideration of Rupees 26,625. I have become security in person and property, and having executed a Zamminamah, have taken in putnee, on account of her minority, and as her guardian and executor, I execute a putnee caboolent, and sign for her with my own pen. Of the consideration-money of the putnee purchase Rupees 18,625, in cash and Bank of Bengal notes, have been paid in through my managers, Sree Jadab Nundo Bagchee and Byeuntnath Bose. Owing to the remaining Rupees 8,000 of the purchase-money not being in the treasury of my daughter, I mortgage the half, that is, the 8 annas of the putnee mehal aforesaid, which I took for my daughter in putnee, and now having taken from you a receipt for the consideration received by you, and the Byenamah of the putnee aforesaid, I execute to you this tummasook, in the form of an ikrar, for the balance, Rupees 8,000. From this day's date and within two months or a period of sixty days, I will pay you that amount, together with the usual interest, and take back this tummasook from you. In case I should pay you by instalments, you will give me credit for such payment on the back of the tummasook; besides the payment endorsed on the tummasook, should I raise any plea of payment, the same shall be invalid and bad. So long as I don't pay the amount aforesaid, you shall neither give the mortgage putnee lands in durputnee to any other person, nor alienate the same by gift or sales, &c. If you do such, the same shall be invalid and unrecognizable. If I don't pay within the term aforesaid, then you may institute a suit, and in execution of decree attach and sell the aforesaid mortgage-property, as well as my own estates, whether in my name or Benamee, and whether held for a term or mourosee, and satisfy yourself, and I shall make no objection or opposition to the same.

"Under these circumstances, having duly received the Byenamah and receipt of the consideration-money of the putnee aforesaid, I mortgage the 8 annas of the putnee mehal aforesaid for the balance Rupees 8,000 of the purchase-money, and execute this mortgage tummasook in the form of an ikrar."

By a deed of sale the said Izur Chunder Mookerjee assigned to the said Sree Bamundass Mookerjee the said mortgage-debt and securities for the same. Such assignment was made to the said Sree Bamundass Mookerjee, Benamee for the plaintiff.

On the 28th June 1851 the plaintiff filed his plaint against the said Henry Gloucester French himself, and as guardian of Maria Louisa French, minor, and the said Sree Bamundass Mookerjee, claiming an aggregate sum of Rupees 12,276, for principal and interest, under, or by virtue of the said mortgage bond, and stating *(inter alia)* as follows :—"And inasmuch as the Sahib aforesaid has represented that the mehals aforesaid were taken on putnee on account of his daughter, and he has signed his name as guardian of his daughter named in the putnee caboolent for the same, and as the deed of sale of the putnee likewise specifies his name as guardian of his daughter, and the amount of the tummasook is clearly executed on account of the unpaid consideration of the putnee purchase, and the Sahib aforesaid has mortgaged the 8 annas of that putnee, together with the whole of the estates in his own name as security for the payment of the amount of the tummasook, and inasmuch as the Sahib aforesaid is now established in his Kootee Meergunge in Thannah Mahomedpore, Zillah Jessore, it therefore becomes necessary to sue him in the above sum in his own name and as guardian of his daughter."

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* Reported specially for the *Madras Jurist*.

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The suit came on for hearing before the Principal Sudr Ameen of Zillah Rajshahye, on the 12th of June 1855, who gave a judgment to the effect that the said respondent, Henry Gloucester French, do pay to the plaintiff the sum of Rupees 12,276, together with interest and costs. The material portions of the judgment are as follows:—

"When Mr. French, defendant, has himself "admitted the ikrar in his reply, and when "the right and interest of plaintiff in this "ikrar has been proved to have been purchased "by the plaintiff in the proceedings in settle-"ment of the issues in bar, it becomes neces-"sary to adjudicate on the issues of fact— "Whether the plaintiff is entitled to recover "the principal and interest in accordance to "the terms of the ikrar, or is Mr. French "exempted from liability to interest since "the dismissal of the case of Kistocoomar "Moibis respecting the mehal of Zillah Shaool? "Was such an arrangement made by the "Zemindar, and if so, would it be binding on "the plaintiff. The issue or law is the follow-"ing on the allegation that the Zemindar, "vendor, had duly granted a receipt for the "value of the putnee, and had accepted a "tummasook for the unpaid value from the "Sahib only. Will Mr. French be only liable "or also his daughter, the minor, and if in "person or property . . . . adjudica-"tion on plea of law. On the ikrar, the basis "of the present claim, neither in the contents "nor in the signature does it appear that "Mr. French has attested and granted this "ikrar as for his guardian, Miss Maria Louisa "French, minor. Mr. French, defendant, has "not signed his name on the contents, or in the "signature of the ikrar, as guardian of his "minor; he merely has signed his own name. "It is clearly stated in the ikrar that the "Sahib has taken the putnee for his minor. "Mr. French, defendant, has merely, in this "transaction, mentioned the name of his minor. "He seems himself bound in every respect, "when, for the consideration of the putnee, "the Zemindar has received in part by cash, "and partly by document, and granted a receipt "for the same, and when this ikrar cannot "but be regarded as one instrument in a trans-"action, the minor cannot be obliged. But "regarding the putnee mehals which have "been stated in this ikrar to have been mort-"gaged, it has clearly been proved to have "been in the possession of the claimant."

The said defendant, Henry Gloucester French, being dissatisfied with the said judgment and decree of the Principal Sudr Ameen, filed six grounds of regular appeal against the same. The second of such grounds was as follows:— "I was not aware of the contents of the answer "filed at first on my behalf, I therefore filed "another vakalutnama in the name of the "vakeel Bhoobun Mohun Sein, and produced "through him a petition of objection, stating "therein the forementioned objections. But "the Principal Sudr Ameen disposed of this "suit at the time when the said vakeel was "absent on leave. Such being the case, the "decision of that officer is contrary to justice, "to the established rules of Court, and also "to the precedent of this Court." The fifth of such grounds was as follows:—"Although it "is well known that I had obtained the putnee "tenure in question on behalf of the (afore-"said) minor, as her guardian and executor, "and the responsibility of the amount of loan "claimed by the plaintiff attaches to her, and "although plaintiff instituted this suit against "me as guardian and executor of the said "minor, yet the Principal Sudr Ameen has "decreed the case against me alone. Hence "it is clear that the decision of that officer is "contrary to the pleas set up both by the plain-"tiff and defendant, and also to justice."

The said appeal came on for hearing on the 5th of March 1857 before three Judges of the Sudr Court, who delivered judgment as follows:—

"This suit was brought for the above sum "on a bond executed by Mr. Henry Gloucester "French as woolee and woosee of his minor "daughter, Miss French, being the balance of "the purchase-money of a putnee granted by "Issur Chunder Mustaffee, Zemindar, for the "use and benefit of Miss French . . . . . The "Principal Sudr Ameen, on the ground that "Mr. French admitted having executed the "bond, after overruling some objections as to "his personal liability under the contract, "decreed the whole amount against him as a "money debt. Mr. French has appealed, and "his pleader, after submitting some pleas and "objections which were found not to be in-"cluded in his written grounds of appeal, con-"fined his appeal to the point, that as the debt "was obviously contracted by Mr. French for "the purchase of a putnee, exclusively intended "for the use and benefit of his minor daughter, "and for the security of which debt the half "share of the putnee was specially pledged, that "the decree be allowed to declare the liability "of the property so pledged in the first instance, "and that the decree-holder be permitted to "proceed against Mr. French only for such "balance of the decree as may not be satisfied "by the sale of the property pledged. As the "pleader on the other side signifies to the "Court that he should be satisfied if the lower "Court's decree be to this extent amended; "it is therefore ordered that the amount "decreed by the Principal Sudr Ameen be "confirmed, but with reference to the above "arrangement, the decree-holder will first pro-

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"ceed to satisfy this decree by sale of the pro-
"perty pledged, so far as that property may be "liable under the terms of the bond executed "by Mr. French, as woolee and woosee of his "daughter, and any balance still remaining "with them be levied upon Mr. French unre-"servedly until the whole amount of the decree "be realized. Costs on the appellant."

The respondent, Maria Louisa Stevenson, then Maria Louisa French, was, at the time of delivery of the said judgment of the said Sudr Court, resident in England, and was between 17 and 18 years of age. She attained her majority in 1860, having previously married the respondent, John Stevenson. On the 22nd of September 1866, the said Maria Louisa Stevenson filed a memorandum, applying for a review of the said judgment of the Sudr Court.

The application for review having been granted, the case was, on the 8th of January 1867, reheard by the Honourable Sir Barnes Peacock, Chief Justice, and the Honourable Mr. Justice Markby, who decided that—"The "judgment and decree of the Sudr Court must "be modified by cancelling that part of it "which orders that the decree-holder will first "proceed to satisfy the decree by a sale of the "property pledged, so far as that property may "be liable under the terms of the bond executed "by Mr. French, as woolee and woosee of his "daughter, and that any balance still remain-"ing will then be levied from Mr. French "unreservedly until the whole amount of the "decree be realized."

The material portions of the judgments were the following:—"I think it perfectly clear that "when the decree was obtained against Mr. "French upon his answer, that he alone was "personally liable, and that neither his daugh-"ter nor her estate was liable; the Sudr Court "ought not, on his appeal, as guardian of his "daughter, to have held that the 8 annas share "was liable to be sold in execution of that "decree. Nor do I understand that the Sudr "Court did so decide as a matter of legal "construction. They acted merely upon the "arrangement and compromise between Mr. "French and the respondent, and this at a time "when the daughter's interests were in conflict "with those of her guardian . . . . "We are of opinion that the Sudr Court ought "not to have acted upon the compromise be-"tween Mr. French and the plaintiff to the "prejudice of the minor, and that the decree "ought to have stopped at the word con-"firmed . . . . Whatever may be the rights "between Mr. French and the plaintiff, between "themselves, under the agreement of compro-"mise, we are of opinion that no effect can be "given to it in an appeal from the decision of "the Principal Sudr Ameen, and that, upon "rehearing that appeal upon review which "we are now doing, we cannot order it to be "enforced to the prejudice of Mrs. Stevenson, "by modifying the decree of the Principal "Sudr Ameen, and holding that the estate "shall be sold in execution of the decree before "it is enforced against Mr. French. Upon "the merits of the appeal (independently of "the agreement of compromise) we are of "opinion that Mr. French's appeal ought to "have been dismissed, and the decision of the "lower Court affirmed, upon the ground that "the suit was not brought to render the estate "liable, but for a decree against Mr. French "personally. Secondly, that Mr. French's "grounds of appeal were in direct opposition "to his defence in the lower Court, and that "the plaintiff, in his answer to Mr. French's "grounds of appeal, contended that there was "no necessity to enter into the question whe-"ther the land was liable . . . . We "must order Mrs. Stevenson to be restored to "all things which she has lost by the decree "of the Sudr Court, which has been set aside. "We therefore order that all that has been "done to her prejudice in pursuance of that "part of the decree of the late Sudr Court "which ordered the 8 annas share to be sold "be set aside, and that the attachment of that "8 annas share be withdrawn. We think it "unnecessary to interfere with the amount of "costs awarded by the late Sudr Court."

Mr. *Kay*, Q. C., and Mr. *John Cutler*, for the appellant, cited *Sherafatoollah Chowdry* v. *Sreematty Abedonissa* (17, Cal. W. R., 374); *Heru Chunder Banerjee* v. *Mooral Hossen* (17, Cal. W. R., 419); and *Brooke* v. *Lord Mostyn* (2, DeGex Jones and Smith, 373), and contended that the compromise was binding on the respondent, and that the respondent, by adopting the purchase, adopted the mortgage also, as being part of the same transaction, and that the 8 annas of the respondent's estate was primarily liable for the mortgage and debt.

The following judgment was delivered by Sir M. Smith :—

Their lordships think that they ought not to disturb the decree of the High Court which was made upon a review of the judgment of the Sudr Udalut. The suit was brought by the present appellant, who was the representative of a vendor of a putnee taluk which had been purchased by Mr. Henry Gloucester French, as he represented, on behalf of his minor daughter, Miss Maria Louisa French. The suit was brought against Mr. French personally and as the guardian of his daughter. It appears that upon the purchase of the estate, which was sold for the sum of Rupees 26,625, a sum of Rupees 8,000, part of it, remained unpaid; and Mr. French gave a mortgage bond, or what is called a tummasook, to secure

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this money, and the suit was brought upon that bond. The conclusion of the suit is this,—after stating the circumstances of the purchase of the bond :—" It therefore becomes necessary to sue " him in the above sum in his own name and " as guardian of his daughter. This suit is " instituted against Mr. French himself and " as guardian of Miss Maria Louisa French, " a minor; and I pray that summons be direct- " ed to the defendants aforesaid as usual; and " that on hearing my evidence in proof of my " claim, it may be ordered that the defendants " be directed to pay me the amount of my " claim, with interest and Court costs." There is nothing in that prayer which seeks to affect the estate. It is a prayer that the defendants may be ordered to pay the amount of the claim. The case was heard before the Principal Sudr Ameen, who found these to be the facts :—" It does not appear from the tenor, or " the part signed, of the ikrar on which the " present suit has been brought by the plain- " tiff, that Mr. French has given and signed " the ikrar as guardian or executor of the " minor, Miss Maria Louisa French. He has " not signed the ikrar as guardian and execu- " tor of the said Miss Maria Louisa French; " he has signed for himself. It has been " clearly mentioned in the ikrar that the " defendant, Mr. French, had obtained the put- " nee tenure for the said minor. The name " of the said minor was used in this affair " only by the defendant, Mr. French. In every " respect the defendant, Mr. French, appears " to be responsible." He goes on :—" Such " being the case, the said minor can by no " means be responsible." Then the order is, " that the case be decreed, that the defendant, " Mr. French, pay to the plaintiff the amount " claimed, viz., Rupees 12,276, together with " interest on the principal," and so on. There is therefore a finding, the question apparently having been raised, that Mr. French alone is liable upon that instrument, and an order upon him alone for the payment of the money. The plaintiff, whom the present appellant represents, seems to have been perfectly contented with that decree. He did not appeal; but Mr. French appealed upon the ground that he ought not to have been made solely responsible for this amount, and that his daughter ought to have been joined in the decree. That ground of appeal was in the teeth of his own assertion in the pleadings in the Court below that he was alone liable for this debt; and an effort was made by him to get rid of that pleading, but the Court apparently did not grant his request, and, at all events, that pleading stood; and so the case came before the Sudr Court. On the pleadings, as they stood, and which were not amended, it would have been impossible for that Court to have altered the decree as Mr. French desired; and they did not do it; but it seems that Mr. French proposed to the plaintiff a compromise of the appeal, which the appellant acquiesced in. That compromise is stated in the judgment, founded on the compromise, of the Sudr Court. They state, " Mr. French has ap- " pealed; and his pleader, after submitting " some pleas and objections which were not " found to be included in his written grounds " of appeal, confined his appeal to the point " that, as the debt was obviously contracted " by Mr. French for the purchase of a putnee " exclusively intended for the use and benefit " of his minor daughter, and for the security " of which debt the half share of the putnee " was specially pledged, that the decree be " allowed to declare the liability of the property " so pledged in the first instance, and the decree- " holder be permitted to proceed against Mr. " French only for such balance of the decree as " may not be satisfied by the sale of the pro- " perty pledged. As the pleader on the other " side signifies to the Court that he should " be satisfied if the lower Court's decree be to " this extent amended, it is therefore ordered " that the amount decreed by the Principal " Sudr Ameen be confirmed; but with reference " to the above arrangement, the decree-holder " will first proceed to satisfy this decree by " sale of the property pledged, so far as that " property may be liable under the terms of " the bond executed by Mr. French as woolee " or woosee of his daughter, and any balance " still remaining with them be levied from Mr. " French unreservedly, until the whole amount " of the decree be realized." The compromise may have been proper, and if all the facts could be assumed as Mr. Kay supposes them to exist, there may have been no objection to such an arrangement; but the vice of the arrangement is that it was made without the party who is principally affected by it being sufficiently represented. The appeal to the Sudr Court was really an appeal by Mr. French against his co-defendant, his own daughter; and she not being in any way represented before the Court but by himself, he comes to this compromise and gets the assent of the plaintiff to it. It is plain that the Court exercised no controlling power over it; that they did not consider that they were looking after the interests of the infant, but they base their decree simply upon this compromise. It does not appear what was done for ten years after this decree; but upon the daughter attaining her majority and being married, she and her husband applied to the High Court for a review of this decision, which the High Court had power to re-hear, as the Sudr Court, if it had existed, might itself have done. Upon the re-hearing, the objections to which allusion has just been made were pointed out in the judgment of the High Court. The learned Chief Justice went very fully into the case and came

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to the conclusion that the appeal to the Sudr Court was not made by the plaintiff, but by Mr. French himself, and that he had obtained an alteration of the decree in his own favour to the prejudice of his daughter. The High Court thought that in a suit commenced as this had been, and with the pleadings of Mr. French standing as they did upon this record, they had not materials for going into the merits of the case to see what were really the rights between Mr. French and his daughter. Their lordships cannot say they were wrong. By reversing the former order of the Sudr Court, they left the appellant exactly where he was after the judgment of the Principal Sudr Ameen, a judgment from which he did not appeal, and to which he must be again remitted. Whatever rights (if any) the plaintiff may have against the estate or against the daughter, he will not be precluded from asserting in a suit properly framed, because one of the grounds of this judgment is that this suit was framed merely on a money claim for the amount of the mortgage-debt.

Their lordships will therefore humbly advise Her Majesty that the order of the High Court be affirmed.

CIRCULAR ORDERS OF THE BOARD OF REVENUE.

No. XXVII.

STANDING No. 295-5.

COLLECTORS TO DEFEND SUITS FOR TRANSFER OF PUTTAHS, WITHOUT REFERENCE TO BOARD, WHERE NO COMPLICATION.

Proceedings of the Board of Revenue, dated 17th August 1874, No. 2,291.

THE Board's Standing Order* No. XVI of 1872—(295-3) is cancelled, and Collectors are empowered to defend without reference to the Board, suits brought for the transfer of puttahs in cases where there is no complication. Quarterly reports of such cases will be forwarded by Collectors to the Board for submission to Government.

*G. O., 16th July 1874, No. 885.

No. XXVIII.

STANDING No. 3-2.

REWARDS CLAIMABLE BY SHIKARRIES—OPTION.

Proceedings of the Board of Revenue, dated 20th August 1874, No. 2,326.

STANDING ORDER No. 3 is modified to the following extent.

2. Shikarries and others will be allowed the option of claiming the rewards due to them for the destruction of wild beasts either from a Tahsildar or a Divisional Officer without restriction as to amount, but if the application is made to the Tahsildar, he must report on the case to the Divisional Officer (sending the skin and claws at the same time in the case of a wild beast), and await orders as to the amount to be disbursed.

Board's Proceedings, dated 2nd March 1871, No. 926, and 23rd March 1871, No. 1,263.

No. XXIX.

STANDING No. 370-4.

GRANT OF LEAVE BY SUB-COLLECTORS SUBJECT TO COLLECTOR'S VETO.

Proceedings of the Board of Revenue, dated 31st August 1874, No. 2,449.

THE grant of leave by Sub-Collectors to Sub-division Sheristadars and Tahsildars of taluks is subject to the veto of the Collector.

G. O., 3rd July 1874, No. 827.

No. XXX.

STANDING No. 407-13.

BATTA TO TREASURY DEPUTY COLLECTORS INSPECTING TALUK TREASURIES.

Proceedings of the Board of Revenue, dated 2nd September 1874, No. 2,479.

TREASURY Deputy Collectors when travelling to inspect taluk treasuries are entitled to batta at the rate of 4 Rupees a-day and to mileage at 4 Annas a-mile by road and $1\frac{1}{2}$ by rail.

G. O., dated 13th July 1874, No. 870, Revenue Department.

2. When the journey is made by rail, these officers will also be paid the fare for two servants and one horse if actually taken with them.

No. XXXI.

STANDING No. 71-1.

LOCAL FUND BOARDS MAY APPOINT SUB-COMMITTEES.

Proceedings of the Board of Revenue, dated 7th September 1874, No. 2,519.

GOVERNMENT have ruled that Local Fund Boards are competent to appoint Sub-Committees out of their own number for Schools, Dispensaries, &c. It is only when the Sub-Committees are to consist in whole or part of gentlemen who are not Members of the Local Fund Board, that a reference to Government under Rule XII is necessary.

G. O., dated 7th August 1874, No. 1,304.

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OFFICIAL PAPERS.

Revenue Settlement and Collections— Madras—Fusly 1282.

Proceedings of the Madras Government, Revenue Department, 23rd *June* 1874.

(Continued from page 270.)

11. Ryotwar Holdings of Land held on payment of Assessment direct to Government —*Statement No.* 3.—The following abstract of Return No. 3 shows Ryots' holdings or land held on Ryotwari tenure in all the Districts, except South Canara, where the areas are not known:—

Items.	Dry. Extent.	Dry. Assessment.	Wet. Extent.	Wet. Assessment.	Total. Extent.	Total. Assessment.
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Holdings at the beginning of the Fusly 1282	16,084,145	170,09,993	3,601,793	169,27,437	19,685,938	339,37,430
Deduct lands given up	916,832	9,21,379	111,549	554,199	1,028,381	14,75,578
Remainder...	15,167,313	160,88,614	3,490,244	163,73,238	18,657,557	324,61,852
Add lands taken up	930,256	8,08,185	154,935	6,71,479	1,085,191	14,79,664
Total...	16,097,569	168,96,799	3,645,179	170,44,717	19,742,748	339,41,516
Deduct Waste remitted	435	601	50,905	3,55,957	51,340	3,56,558
Waste charged	1,605,532	14,07,433	142,818	5,50,096	1,748,350	19,57,529
Actual cultivation	14,491,602	154,88,764	3,451,456	161,38,665	17,943,058	316,27,429
Total...	16,097,134	168,96,197	3,594,274	166,88,761	19,691,408	335,84,958

12. The results of the year show a net increase in holdings (dry and wet) of acres 56,810 and in assessment of Rupees 4,085, or in other words, there is an increase of ·3 per cent in the area and ·01 per cent in the assessment. The gross increase amounted to acres 181,799 and Rupees 2,13,732, and the gross decrease to acres 124,989 and Rupees 2,09,647. The Districts in which the increase and decrease are most conspicuous are shown below. The increase in Bellary, Godavery, Kistna and Madura is due to the favourable character of the seasons, and in Kurnool it is due to that cause and to the correction of measurements by the survey in the Pattikonda Taluk. The decrease is attributable to several causes. In Trichinopoly it is for the most part nominal. A large extent of land (32,017 acres, assessed at Rupees 35,319) actually under occupancy was not included under Holdings, as it was occupied without application being formally presented and disposed of under the rules. The assessment of those lands has been therefore included under Miscellaneous, and the Collector has ordered inquiry to be instituted as to whether puttahs could be granted to the occupants under the Durkhast rules. In North Arcot the Collector states that the decrease, which is chiefly in dry land, is in consequence of the inadequate fall of rain during the season for the cultivation of dry crops, and in Coimbatore it is remarked that the relinquishments are chiefly in sickly hill taluks and in low classed land probably requiring to be left fallow. In the other Districts the Collectors do not explain the cause of the falling off. The Board observe that in Chingleput the decrease in the area is only 1,384 acres, while that in the assessment is Rupees 24,668. The cause of this apparent disparity is not clear. The area of wet lands has increased by 969 acres, but in its assessment there is a decrease of 9,785 Rupees. The decrease on dry lands is also quite out of proportion to the decrease in assessment. Against a decrease of 2,353 acres there is a falling off of Rupees 14,883 in the assessment. This is probably because the areas have been corrected in accordance with the

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survey in some of the taluks, though the assessment has been left as it is pending settlement. The Collector will, however, be requested to explain.

	ACRES.	RS.
Fusly 1281 ...	19,685,938	339,37,431
„ 1282 ...	19,742,748	339,41,516
Increase...	56,810	4,085

Increase.	ACRES.	RS.
1. Bellary	72,223	31,141
2. Kurnool ...	36,670	21,913
3. Kistna	32,303	94,001
4. Godavery ...	19,915	26,247
5. Madura	8,207	10,702

Decrease	ACRES.	RS.
1. Trichinopoly ...	49,508	47,212
2. North Arcot ...	30,207	46,158
3. South Arcot ...	19,918	45,374
4. Nellore	7,693	12,440
5. Cuddapah ...	4,763	19,272
6. Coimbatore ...	3,444	12,873
7. Chingleput ...	1,384	24,668

13. RYOTWAR LANDS BROUGHT UNDER CULTIVATION.—Of the holdings noted in the foregoing paragraph 90 per cent of dry and 94·6 per cent of wet lands were cultivated.

	ACRES.
Dry holdings ...	16,097,569
Actual cultivation...	14,491,602

	ACRES.
Wet holdings ...	3,645,179
Actual cultivation...	3,451,456

On the whole the cultivation during Fusly 1282 amounted to 90·8 per cent of the holdings in extent, bearing a charge of 93·2 per cent of the assessment. This, it may be remarked, includes as usual portions of fields left waste and fields ploughed but not sown, amounting to nearly 500,000 acres, as shown below :—

	ACRES.	RS.
Total holdings ...	19,742,748	339,41,516
Cultivation ...	17,943,058	316,27,429

	ACRES.	RS.
Portions of fields left waste ...	481,962	5,83,892
Land ploughed but not sown ...	16,681	28,781
Total...	498,643	6,12,673

In Ganjam, Bellary, and Kurnool, however, portions of fields left waste were not shown as part of the cultivated area, but were added to the entire fields left waste and shown as charged or not according to circumstances. In Ganjam the Collector has explained that the fields according to the old measurement (Paimash) range from 169 square feet (1 Kunta) to 400 acres, and that portions of fields left waste could not therefore be fairly shown as part of the cultivated area; but the Collectors of Bellary and Kurnool do not say why their accounts are framed on a different principle from that adopted in other Districts, and they have been called upon to explain. As the figures stand the cultivation in Fusly 1282, when compared with that for the previous year, shows an increase of 327,529 acres, assessed at Rupees 5,45,649. This net result arises from an increase in fifteen Districts and a decrease in the rest, as shown below :—

	ACRES.	RS.
Fusly 1281 ...	17,615,529	310,81,780
„ 1282 ...	17,943,058	316,27,429
Increase...	327,529	5,45,649

Increase...	Extent. ACRES.	Assessment. RS.
1. Vizagapatam ...	......	20,717
2. Godavery	11,226	36,896
3. Kistna	171,235	3,23,950
4. Nellore	4,908	36,814
5. Cuddapah ...	13,815	51,874
6. Bellary	93,982	65,705
7. Kurnool	40,463	21,942
8. Chengleput	13,424	958
9. Tanjore	34,332	65,219
10. Madura	18,055	34,383
11. Tinnevelly ...	23,648	2,431
12. Coimbatore	7,349	7,774
13. Nilgiris	4,799	2,051
14. Salem	956	8,763
15. Malabar	1,641	6,414
	439,833	6,85,891
Decrease.		
1. Ganjam ...	806	160
2. Vizagapatam ...	1,183	......
3. South Arcot ...	15,505	25,666
4. North Arcot ...	37,621	65,057
5. Trichinopoly ...	57,189	49,359
	112,304	1,40,242
Net...	327,529	5,45,649

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14. The increase in the assessment, accompanied by a decrease in the area in the District of Vizagapatam, has been caused by the relinquishment of cultivation in dry and increased cultivation in wet lands during Fusly 1282, owing to a favourable season. In Chingleput and Tinnevelly the increase in the assessment is not commensurate with the increase in the area. In the former this is probably due, as explained in regard to holdings, to the correction of the areas by the survey, whilst the assessment is left untouched pending settlement, and in the latter, the cause is not explained by the Collector; but the Board observe that in this District it has been usual to include in the assessment the charge on account of second crop raised on single crop lands, and the charge for water on dry land irrigated for more than one year instead of showing these items separately as in other Districts. It is, therefore, possible that though the area cultivated might be larger, still the fluctuations in the second crop cultivation and irrigation of dry lands might cause a diminution in the assessment. The Collector will, however, be requested to explain this, and in future to exhibit Fasaljasti (assessment for a second crop) and Teerwajasti (water-rate) charged on Government lands separately as is done in all other Districts. The increase in Tanjore is accounted for to the extent of Rupees 36,134 by portions of fields left uncultivated, which were formerly included under waste charged, having been, to secure uniformity, transferred to cultivation in Fusly 1282. The increase in the other Districts does not call for remark, being chiefly due to the favourable seasons.

15. As regards the Districts in which there is a decrease Ganjam does not call for remark, the decrease being trifling. In Trichinopoly a large portion of the decrease (Rupees 20,719) is nominal and is attributable to the same cause which has been assigned for a similar result in the total holdings. As regards the remaining decrease in the District (Rupees 28,640) the Collector attributes it chiefly to the facts that, in consequence of the extraordinary reduction of assessment in Mr. Puckle's settlement, ryots were tempted to speculate in land who had no means of cultivating it properly, and yet took up large blocks, and after struggling with difficulties year after year are now beginning to throw up their lands and reduce their holdings to an extent which they can afford to cultivate. The decrease in North Arcot is stated to be due to the fall of rain during the season being insufficient for cultivating dry crops, and the cause of the decrease in South Arcot is apparently due to the same cause, though the Collector does not explain it.

16. Ryotwari Lands left waste (remitted and charged).—Of the lands under occupancy noted in paragraph 11 above 2,281,652 acres, assessed at Rupees 28,97,979, were left waste. Of this extent the ryots paid for 2,228,107* acres, assessed at Rupees 25,32,586, and got their dues remitted on 53,545† acres, assessed at Rupees 3,65,393. Out of the waste charged 92 per cent in the area and 73·6 per cent in the assessment relates to dry lands, and the remaining small percentage appertains to wet land, as shown below:—

	Extent.	Assessment.
	ACRES.	RS.
As per Statement No. 3	1,799,690	23,14,087
Waste portions included in cultivation	481,962	5,83,892
Total...	2,281,652	28,97,979
	ACRES.	RS.
* As per Statement No. 3	1,748,350	19,57,529
Waste portions included in cultivation	479,757	5,75,057
Total...	2,228,107	25,32,586
† As per Statement No. 3	51,340	3,56,558
Portions included in Statement No. 4	2,205	8,835
Total...	53,545	3,65,393
	ACRES.	RS.
Dry	2,052,105	18,63,499
Wet	176,002	6,69,087
Total...	2,228,107	25,32,586

17. Much of the waste dry land is retained by ryots for pasturage, and the general rule is that no remission is allowed on it. The waste wet land charged is less than that in the previous year, and does not call for remark; the charge being made only when negligence is the cause of its being left waste.

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The Districts in which the greater part of the charge for occupied waste was made are noted below :—

—	As per Statement No. 3.	On portions of fields included in cultivation.	Total.
	RS.	RS.	RS.
1. Kistna ...	2,72,399	2,09,515	4,81,914
2. Coimbatore...	2,05,992	38,569	2,44,561
3. South Arcot.	1,81,043	39,244	2,20,287
4. Nellore ...	1,71,757	41,917	2,13,674
5. Godavery ...	1,49,035	76,748	2,25,783
6. Tinnevelly ...	1,47,821	42,969	1,90,790
7. Tanjore ...	1,40,665	36,134	1,76,799
8. Chingleput...	1,38,495	30,106	1,68,601
9. North Arcot.	1,32,366	14,509	1,46,875
10. Trichinopoly.	1,05,043	37,369	1,42,412
11. Madura ...	93,052	23,281	1,16,333

18. Ryotwar Settlement.—The Ryotwari settlement is formed by adding to the actual cultivation (1) the portion of the waste which is charged for, (2) the assessment on account of second crop cultivation, (3) additional assessment, (4) water-tax, and (5) miscellaneous items; all of which will be noticed hereafter, and by deducting therefrom—

(1.) Occasional remissions.

(2.) Fixed remissions.

(3.) Deductions on account of village establishments and sundry other purposes.

19. The settlement of the Ryotwari revenue thus made for the fusly under report amounted to Rupees 397,46,618 against Rupees 387,37,851 in the previous year, resulting in an increase of Rupees 10,08,767, as will be seen from the following comparative abstract :—

Items.	Fusly 1281.		Fusly 1282.		Increase.		Decrease.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.
	ACRES.	RS.	ACRES.	RS.	ACRES.	RS.	ACRES.	RS.
Dry	16,084,145	170,09,993	16,097,569	168,96,799	13,424	......	......	1,13,194
Wet	3,601,793	169,27,438	3,645,179	170,44,717	43,386	1,17,272	......	......
Total...	19,685,938	339,37,431	19,742,748	339,41,516	56,810	4,085	......	......
Second Crop Assessment...	......	5,77,025	......	6,75,153	......	98,128	......	......
Additional Assessment ...	......	5,22,251	......	6,25,255	......	1,03,004	......	......
Water-tax ...	......	13,47,655	......	13,83,163	......	35,508	......	......
Revenue of South Canara.	......	12,75,496	......	12,76,657	......	1,161	......	......
Total...	......	376,59,858	......	379,01,744	......	2,41,886	......	......
Deduct.								
Waste Remissions ...	......	6,13,261	......	3,56,558	......	......	......	2,56,703
Other Remissions ...	......	20,61,227	......	17,06,567	......	......	......	3,54,660
Total...	......	26,74,488	......	20,63,125	......	......	......	6,11,363
Remainder ...	......	349,85,370	......	358,38,619	......	8,53,249	......	......
Add Miscellaneous ...	......	37,52,481	......	39,07,999	......	1,55,518	......	......
Total...	......	387,37,851	......	397,46,618	......	10,08,767	......	......

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There is an increase in the Ryotwar demand in all the Districts except Madras, the Nilgiris and Malabar, and the Districts in which the increase is large are noted below with the amounts of the increase specified opposite to each:—

		Increase.
		RS.
1.	Cuddapah	1,37,624
2.	Tinnevelly	1,19,030
3.	Bellary	1,13,132
4.	Nellore	1,05,760
5.	Ganjam	1,01,463
6.	Godavery	95,930
7.	Vizagapatam	77,366
8.	Madura	72,234

20. RYOTWAR SETTLEMENT—*Second Crop Assessment.*—The amount charged on account of second crop assessment in Fusly 1282 is Rupees 6,75,153 against Rupees 5,77,025 in the previous year. The net increase of Rupees 98,128 has resulted from a gross increase of Rupees 1,23,613 in ten Districts, and a gross decrease of Rupees 25,485 in three Districts. The Districts in which the increase is large are noted in the margin. The increase in Godavery is only nominal. Hitherto water-rate charged whether on first crop or second crop has been entered in one column, *i.e.*, "Water-tax;" but this year the Collector has entered the charge on the second crop under the proper head with reference to the Board's remarks in their last Jamabundy Report. In Kistna the increase appears to be due to the same reason, though the Collector does not state it, and in all the other Districts it is attributable to the favourable seasons. The three Districts in which there is a decrease are noted in the margin. In Kurnool the decrease is chiefly in Koilkuntla, Cumbum, and Markapur, where most of the tanks received insufficient supplies, in Madura it is owing to the scanty rain-fall during the first half of the calendar year 1873, and in Trichinopoly the cause of the decrease which is small is not explained.

	RS.
Fusly 1281...	5,77,025
„ 1282...	6,75,153
Increase...	98,128

	RS.
1. Cuddapah...	30,340
2. North Arcot	27,247
3. Chingleput.	23,956
4. Godavery...	16,278
5. Bellary ...	11,082
6. Kistna ...	5,998

	RS.
Kurnool... ...	1,740
Trichinopoly...	4,272
Madura... ...	19,473

21. RYOTWAR—*Additional Assessment, or the charge on Dry Lands irrigated.*—The amount shown under this head includes not only the charge for water on dry lands temporarily irrigated, but also in some Districts the additional assessment imposed on lands as a means of prohibiting cultivation. The Board consider that charges of the latter description alone should appear under this head, and that all charges on account of water, whether charged at fixed rates or with reference to the difference between wet and dry assessment, should be shown as water-tax. If this view is approved the Board will instruct the Collectors accordingly. As the figures stand the amount shown under this head shows a net increase of Rupees 1,03,004, which is the result of a gross increase of Rupees 1,17,252 in eleven Districts, and a gross decrease of Rupees 14,248 in five districts.

The increase is conspicuous in the Districts noted in the margin. In South Arcot the Collector states that it is due partly to the enhancement of water-rate for the cultivation of plantain, betel, &c., recently sanctioned by the Board. In North Arcot it is stated to be due to the strict adherence to the rules, and the dread of detection during the operation of the Revenue settlement, which has already brought to light several cases of fraud practised by Curnums in respect of this item of charge in the Chendragiri and Chittoor Taluks. In the other three Districts the cause of the increase is not explained, but the Board believe that it is due to the favourable seasons and the consequent abundant supply of water available.

	RS.
1. South Arcot ...	45,254
2. North Arcot ...	26,913
3. Bellary ...	18,249
4. Cuddapah ...	12,689
5. Chingleput ...	9,416

22. RYOTWAR SETTLEMENT—*Water-tax on Government Lands.*—The greater part of this tax is levied in the Delta Taluks irrigated by the Godavery and Kistna anicuts. The total revenue from this source amounted to Rupees 13,83,163 against Rupees 13,47,655 in the previous year, and was contributed chiefly by the Districts noted below. The increase which is small calls for no remark.

	RS.
Fusly 1281	13,47,655
„ 1282	13,83,163
Increase...	35,508

		RS.
1.	Ganjam	9,47,478
2.	Kistna	2,96,728
3.	Tanjore	50,041
4.	Trichinopoly	35,770
5.	Kurnool	13,136
6.	Chingleput	11,887
7.	Coimbatore	10,370
8.	Nellore	9,554

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23. Ryotwar Settlement—*Remissions.*—The deductions which are made from the gross demand on account of land assessment in the Ryotwari settlement will now be noticed. Their amount for Fusly 1282 is given in the following abstract in comparison with the previous fusly, and will be observed to contrast favourably with it to the extent of Rupees 6,11,363, the details of which will be noticed below :—

Items.	Fusly 1281.	Fusly 1282.	Increase.	Decrease.
	RS.	RS.	RS.	RS.
Waste remissions as per Statement No. 3	6,13,261	3,56,558	......	2,56,703
As per Statement No. 4. { Occasional remissions	7,27,054	4,44,037	......	2,83,017
Fixed do.	72,042	64,750	......	7,292
Items allowed on the collection or from demand of villages	12,62,131	11,97,780	......	64,351
Total...	26,74,488	20,63,125	......	6,11,363
Net...	......	......	......	......

24. Ryotwar Settlement—*Remissions on lands left waste.*—Remissions on account of lands left waste were granted during Fusly 1282 to the extent of Rupees 3,68,903, a sum which is less than that granted in the previous year by Rupees 2,72,700. They were almost entirely on account of wet lands left without irrigation for want of water.

	Fusly 1281.	Fusly 1282.
	RS.	RS.
As already stated in paragraph 16...	6,38,363	3,65,393
South Canara ...	3,240	3,510
Total...	6,41,603	3,68,903

25. Ryotwar Settlement—*Occasional Remissions.*—Occasional remissions which are granted on fields actually cultivated amounted in the fusly under report to Rupees 4,31,692* against Rupees 6,98,712 in the preceding year, resulting in a large decrease of Rs. 2,67,020 which is due to the favourable season. The remissions chiefly consist of the items noted below :—

		RS.
* Total remissions as per Statement No. 4		4,44,037
Deduct remissions on portions of fields left waste...		12,345
	RS.	
As per paragraph 16.	8,835	
South Canara ...	3,510	
	12,345	4,31,692

	RS.
Fusly 1281	6,98,712
„ 1282	4,31,692
Decrease...	2,67,020

		RS.
1.	Loss of produce (Palanastam)	1,70,876
2.	Reduction of assessment (Teerwa Cummy) ...	1,08,480
3.	Second crop not cultivated (Fasal Cummy)	44,923
4.	Withered crop (Shavy) ...	26,618
5.	Payamaly or land injured by floods	12,487

Remissions on account of loss of produce (Item No. 1) were large only in the Districts of Godavery and Kistna. They were granted on both dry and wet lands with the previous sanction of the Board,* in consequence of the damage done to the crops by excessive rains and inundations. The remission on account of reductions of assess-

	RS.
Gadavery...	19,363
Kistna ...	1,36,053

* Board's Pros., 4th June 1873, No. 932.

Board's Pros., 14th June 1873, No. 3,637.

Board's Pros., 20th Jan. 1873, No. 337.

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	RS.
1. Coimbatore.	56,995
2. Chingleput.	18,034
3. Nilgiris ...	10,137
4. Nellore ...	9,533
5. Madura ...	9,296

ment (Item No. 2), occurred chiefly in the Districts noted in the margin. It is the reduction of standard assessment pending its general revision, and it also includes the temporary remission granted on wet lands cultivated with dry produce for want of rain. In the Nilgiris this remission was granted on certain plantation lands under the sanction of Government.

G. O., dated 22nd September 1871, No. 1,656.

The other items do not call for remark.

26. RYOTWAR SETTLEMENT—*Fixed Remissions.*—Remissions of this class consist of a variety of deductions which are made from the Ryotwari demand from year to year without reference to the season. The chief items* comprising this class, and the Districts† in which they occur, are noted below. The remission under these several heads being usual, and the amount small, they do not call for remark.

	RS.
Fusly 1281 ...	72,042
„ 1282 ...	64,750

	RS.
* Remissions for re-claiming rocky soils	7,029
Remissions for pasture lands ...	9,494
Remissions on Noothana Dusbundam, *i.e.*, lands granted for the maintenance of a tank, well or channel	5,995
Remissions on Kattugutta (Bilmacta lands), *i.e.*, lands held on favourable assessment ...	4,365
Remissions on charity and private topes	3,657
Remissions on excess Tax above 7 Rupees a Cawny for Dry lands in the South Arcot District	6,020

	RS.
† 1. Cuddapah ...	17,812
2. Chingleput ...	16,369
3. South Arcot ...	10,657
4. Salem ...	9,731

27. RYOTWAR SETTLEMENT—*Deductions from the Beriz on account of remuneration to Village Servants, Road-cess, &c.*—These deductions are made in satisfaction of established claims in accordance with the terms of the existing settlement, and amounted in the Fusly under report to Rupees 11,97,780. Unlike the other deductions they are paid by the cultivators into the Treasury and then made over to the funds to which they appertain. The chief component items are named below. Merahs, or sums due to village servants, are common to many Districts. Under this head there is a decrease of Rupees 63,297 which is in the Trichinopoly District, and is due to the fact that during the preceding year the amount had to be deducted for two years, *i.e.*, Fusly 1280 and Fusly 1281. The second item, viz., Share of Revenue due to Shrotriemdars, is confined chiefly to Tinnevelly and Salem, and will disappear when the revision of the land assessment is completed in these Districts. The third item, viz., Road-cess included in the land assessment occurs in the Districts noted below. In the other Districts no part of the Road-cess is included in the assessment.

	RS.
Fusly 1281 ...	12,62,131
„ 1282 ...	11,97,780
Decrease...	64,351

	RS.
1. Fees to Village Servants (Merahs)	10,23,676
2. Share of Revenue due to Shrotriemdars	87,378
3. Road-cess included in the land assessment	82,813

	RS.
Fusly 1281 ...	10,86,973
„ 1282 ...	10,23,676
Decrease...	63,297

	RS.
Tinnevelly ...	75,447
Salem ...	11,258

	RS.
1. Trichinopoly	28,416
2. Godavery	28,360
3. Kurnool	13,017
4. Kistna	10,855
5. South Arcot ...	465
6. North Arcot	1,700
Total...	82,813

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28. Land Revenue—*Ryotwar and variations therein.*—The Ryotwar revenue exclusive of miscellaneous revenue, which will be noticed hereafter, for Fusly 1282 compared with that for the previous fusly, shows on the whole an increase of Rupees 8,53,249, resulting from a gross increase of Rupees 8,62,360 in eighteen* Districts, and a gross decrease of Rupees 9,111 in two† Districts. This satisfactory result is due, as already remarked, to extended cultivation and smaller remissions consequent on the favourable character of the season.

	RS.
Fusly 1281	349,85,370
„ 1282	358,38,619
Increase...	8,53,249

		RS.
* 1.	Ganjam	1,01,136
2.	Vizagapatam	78,184
3.	Godavery	70,374
4.	Kistna	42,934
5.	Nellore	56,773
6.	Cuddapah	1,12,570
7.	Bellary	80,228
8.	Kurnool	17,619
9.	Chingleput	21,576
10.	South Arcot	5,761
11.	Tanjore	18,326
12.	Trichinopoly	25,324
13.	Madura	87,694
14.	Tinnevelly	1,11,387
15.	Coimbatore	14,213
16.	Salem	6,013
17.	South Canara ...	739
18.	Malabar	11,509
	Total...	8,62,360

		RS.
† 1.	North Arcot ...	6,473
2.	Nilgiris	2,638
	Total...	9,111

29. Entire Land Revenue Settlement including Permanently Settled Revenue, Jodi, and Miscellaneous.—Having in the foregoing paragraphs discussed the main statistics of that portion of the land revenue which is under the Ryotwari settlement the Board will proceed to notice the other items which constitute the Land Revenue of the Presidency, viz., Permanently Settled, Quit-rent on Shrotriems and other Inams, and Miscellaneous.

30. The following is a comparative abstract of the foregoing items of the Land Revenue of the Presidency during Fuslies 1281 and 1282:—

Items.	Fusly 1281.	Fusly 1282.	Increase or Decrease.
	RS.	RS.	RS.
Peishcush on Permanently settled Estates	51,29,464	51,16,332	− 13,132
Jodi and Quit-rent on Shrotriem and Inam villages...	6,39,015	6,42,181	+ 3,166
Ryotwar	349,85,370	358,38,619	+ 8,53,249
Miscellaneous	37,52,482	39,07,999	+ 1,55,517
Total ...	445,06,331	455,05,131	+ 9,98,800

31. Land Revenue—*Permanently Settled.*—The permanently settled revenue is derived from 666 estates situated in fifteen Districts. More than three-fourths of them are very small estates paying a peishcush below Rupees 5,000 per annum, while the number paying above one lakh is only eight.

	RS.
Fusly 1281	51,29,464
„ 1282	51,16,332
Decrease...	13,132

		RS.			RS.
527	Estate below.	5,000	1	Estate below.	1,00,000
68	Do. ...	10,000	1	Do. ...	1,50,000
35	Do. ...	20,000	2	Do. ...	2,00,000
13	Do. ...	30,000	2	Do. ...	3,00,000
7	Do. ...	40,000	1	Do. ...	3,50,000
1	Do. ...	60,000	1	Do. ...	4,00,000
2	Do. ...	70,000	1	Do. ...	5,00,000
4	Do. ...	90,000			
			666		

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32. *Variations therein.*—There have been variations in the permanently settled revenue in the five Districts noted below, resulting in a net decrease of Rupees 13,132 :—

DISTRICTS.	ESTATES.	AMOUNT. RS.	A.	P.	REMARKS.
	Increase.				
Vizagapatam ...	Waltair ...	3	10	8	The increase is nominal, and is owing to the fact that in Fusly 1282 only Rupees 3-10-8 were deducted from the demand paid to Government by this estate, while in the previous fusly double the amount was deducted on account of compensation due to the Zemindar for Fuslies 1280 and 1281—G. O., 17th August 1871, No. 1,382, and Board's Proceedings, 26th July 1867, No. 4,789.
Kistna	Munagala ...	26	14	8	Due to certain lapsed Inams which were made over to Zemindar—*Vide* G. O., 7th August 1872, No. 1,171.
		30	9	4	
	Decrease.				
Godavery ...	Pittapuram ...	23	4	10	This is the quit-rent payable to the Zemindar on certain resumed Inams within his estate, and has been deducted from the Government demand under G. O., 6th May 1872, No. 82.
	Kottam ...	36	0	0	This is the assessment of lands belonging to the Zemindar which were assigned years ago for Post runners, deduction of which from the Government demand was sanctioned under G. O., 14th March 1872, No. 455.
North Arcot ...	Kalastry ...	13,000	0	0	Due to the reduction made from the demand due to Government by the Zemindar on account of the loss sustained by him in consequence of the abolition of the Moturpha tax within his estate—*Vide* G. O., 14th January 1873, and Board's Proceedings, 18th January 1873, No. 304, and G. O., 26th July 1872, No. 1,131.
Tinnevelly ...	Ettiapuram ...	23	3	0	Due to the reduction made in the Government demand on estates for lands taken up for the Great Southern of India Railway.
	Maniachi ...	68	15	4	
	Perurani ...	11	9	5	
		13,163	0	7	
	Net decrease ...	13,132	7	3	

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33. Land Revenue.—*Quit-rent on Shrotriems and other Inam, and variations therein.*—There is a net increase of Rupees 3,166 in the revenue from Shrotriem villages, resulting from a gross increase of Rupees 3,763* and a gross decrease of Rupees 597† as shown below. In Madura, Tinnevelly, and Salem the increase is due to the imposition of quit-rents on villages enfranchised by the Inam Commissioner. The cause of the increase in Kistna and Trichinopoly is not explained, but it is evidently due to the enfranchisement of Inam villages. As for the decrease, in Godavery it is owing to the inclusion of arrears in the last year's demand; in Chingleput to the resumption of Corómandel, a Cauzy's Inam; in North Arcot to the purchase of an Inam by Government when sold for arrears of revenue; and in Nellore to the reduction allowed on account of lands taken up for public purposes. The Collectors of Cuddapah and Tanjore have not explained the cause of the decrease, and will be called upon to supply the omission. The number of favourably assessed villages which contributed this revenue was 4,422.

	RS.
* 1. Kistna	7
2. Bellary	316
3. Trichinopoly	30
4. Madura	16
5. Tinnevelly	1,030
6. Salem	2,314
	3,763
† 1. Godavery	329
2. Nellore	22
3. Cuddapah	9
4. Chingleput	84
5. North Arcot..	20
6. Tanjore	133
	597

34. Land Revenue—*Miscellaneous and variations therein.*—The revenue under this head, which accrues from a variety of sources, shows an increase of Rupees 1,55,518 when compared with that of Fusly 1281. This is the net result of a gross increase of Rupees 2,83,544 in thirty-one items, and a gross decrease of Rupees 1,28,026 in nineteen items. The more important items which comprise the miscellaneous part of the Land Revenue are specified in the margin. Of these the following items, when compared with those for the previous year, show an increase to the extent noted opposite to each.

	RS.
Fusly 1281	37,52,481
" 1282	39,07,999
Increase...	1,55,518
Quit-rent on sundry Inams	12,76,141
Water-tax on Zemindari and Inam, &c., lands	8,41,441
Lands cultivated, but not included in the Jamabundy	3,42,034
Revenue from rented villages	1,44,397
Grazing tax or Grass rent	1,43,597
Rent on Palmyra trees.	1,29,942
Rent on islands situated in rivers	1,09,495
Tax on trees on unassessed lands. ...	1,07,423
Quit-rent and ground-rent in the Town of Madras	72,773

	Increase. RS.
1. Lands cultivated, but not included in the Jamabundy ...	65,236
2. Rent of Islands situated in rivers	38,354
3. Grazing tax or Grass rent ...	22,407
4. Cultivation of Porumboke lands	13,110
5. Jodi on sundry Inams ...	9,430

The increase in item No. 1 occurs chiefly in the Districts noted in the margin. The increase in North Arcot is due to the extended cultivation carried on in some taluks subsequent to the settlement of those taluks which commenced early in the year. The increase in Chingleput is owing to the cultivation of the early crops having been very limited in consequence of the continuous heavy rains in the months of July, August, and September, and to the settlement of certain taluks having commenced earlier than usual. The increase in South Arcot and Nellore is unexplained, but it is probably due to the above causes. The increase in Item No. 2 chiefly occurs in the Godavery* District, and is due to many of the islands having been rented out for larger sums in consequence of the rise of the price of tobacco. The increase under Item No. 3 occurs chiefly in Nellore.† The Collector does not explain the cause. The increase under Item No. 4 is chiefly in the Kistna‡ District, and is unexplained. That in Item No. 5 occurs in Godavery§ and Nellore,‖ and is due to charge made on account of the excesses in the areas discovered by the survey. The chief items of Land Revenue, Miscellaneous, in which there appears a decrease are those noted in the margin. Item No. 1 occurs chiefly in the Malabar District, and is due to the diminished sales of lands which have escheated to Government. Item No. 2 occurs in the Trich-

	RS.
1. North Arcot ...	25,930
2. Nellore ...	11,499
3. Chingleput ...	8,861
4. South Arcot ...	8,507

* Rupees 39,588.

† Rupees 23,149.
‡ " 7,361.
§ " 5,944.
‖ " 6,164.

	RS.
1. Sale proceeds of escheat and waste lands ...	90,362
2. Concealed cultivation .	17,486

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inopoly District, where most of the revenue, which was the result of the examination set on foot in Fusly 1279, was brought to account last year, and only the small balance, due to the examination, brought under this head this year.

35. LAND REVENUE, SPECIAL ITEMS—*Lands held on Cowle (lease on favourable terms)*.—Subjoined is the usual abstract, showing the particulars of lands held on cowle during Fusly 1282.

		RS.
Fusly	1281.	10,010
„	1282.	7,370
Decrease.		2,640

			ACRES.	RS.
Cowle as per last year			45,281	24,199
	ACRES.	RS.		
Deduct—Land brought up to full assessment ...	5,380	5,833		
Land abandoned	1,508	1,697		
			6,888	7,530
Remainder...			38,393	16,669
Add—New cowle			1,632	1,673
Total...			40,025	18,342
Add—Second crop, and additional assessment and water-tax			...	679
			...	19,021
		RS.		
Deduct—Remission on account of waste		4		
Do. do. cowle		*11,647		
				11,651
Net Beriz...				7,370

* This is inclusive of Rupees 7,539, in Malabar, which is as usual excluded in the Statement No. 4.

The extent of lands held on cowle was 40,025 acres, paying to Government under the conditions of the cowles only Rupees 7,370. Most of the lands held on this tenure are situated in the Districts noted below:—

		RS.
1.	Malabar...	2,471
2.	Ganjam	1,111
3.	South Canara	1,099
4.	Kistna	845
5.	Coimbatore	605
6.	Salem	436
7.	Madura	382
8.	South Arcot	333

36. LAND REVENUE, SPECIAL ITEMS—*Villages settled on the Amani tenure (i. e., in which the produce was divided between the Cultivators and Government)*.—There were fourteen villages in the Districts of Chingleput, South Arcot, and Madura, in which the revenue was settled partly on the basis of a division of produce. The money rent collected in these villages amounted to Rupees 9,077, and the commuted value of the Government share of the produce after the usual deductions to Rupees 4,240, making a total of Rupees 13,317 as the revenue from the Amani villages. Compared with the results of the previous year there is an increase of Rupees 3,888 under this head. This is the result of a gross increase of Rupees 4,276, and a gross decrease of Rupees 388 as noted in the margin.

	Fusly 1281.	Fusly 1282.	Difference.
	RS.	RS.	RS.
South Arcot..	6,171	8,975	+ 2,804
Madura ...	2,870	4,054	+ 1,184
Chingleput ...	...	288	+ 288
Total...			4,276
Tanjore ...	388	...	— 388

In Tanjore the only village which was under Amani in 1871-72 was transferred to Ryotwar, and in South Arcot three villages in which there was no wet cultivation in 1871-72, and which were therefore entered under Ryotwar, were this year transferred to Amani. In Chingleput a new village, the Cauzy's Inam of Coromandel resumed under the orders of Government, was brought under Amani settlement. These variations, added to the increased outturn in the Madura District, have resulted in the net increase of Rupees 3,888 under this head.

G. O, 3rd April 1873, No. 383.

37. The entire Land Revenue, including all the foregoing items, thus amounts to Rupees 455,05,131. The Board have endeavoured to ascertain how much of this is due to irrigation

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and how much to other causes, and the following is the result:—

	RS.
Revenue due to irrigation ...	201,35,083
Do. not due to irrigation.	171,29,217
Do. with regard to which it cannot be ascertained how much is due to irrigation and how much not so due ...	82,40,831*
Total...	455,05,131

* 1. Permanently settled revenue ...	51,16,332
2. Quit-rent on Inam villages and minor Inams ...	19,18,322
3. Revenue of South Canara ...	12,06,177
Total...	82,40,831

Endeavours are still being made to ascertain how much of the revenue under Item No. 2 (Quit-rents) is obtained from irrigated lands, and the Board hope that they will be able to obtain the information next year. It is not necessary to notice here the particulars of each District regarding the revenue obtained from irrigation, as a separate statement containing that information will be submitted to Government in the Public Works Department.

38. LAND REVENUE, SPECIAL ITEMS—*Cultivation of special Crops.*—The extent of cultivation of sugar-cane, cotton, and indigo is shown in the subjoined abstract:—

DISTRICTS.	SUGAR-CANE.		COTTON.		INDIGO.	
	Fusly 1281.	Fusly 1282.	Fusly 1281.	Fusly 1282.	Fusly 1281.	Fusly 1282.
	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
Ganjam	4,648	3,820	10,196	6,288	102	1,112
Vizagapatam	6,865	9,579	15,409	17,582	3,345	6,946
Godavery	6,386	5,777	22,053	22,764	921	2,142
Kistna	......	......	261,301	263,303	32,600	40,592
Nellore	11	20	22,035	33,170	43,266	67,852
Cuddapah	2,938	2,384	80,624	97,167	48,860	59,052
Bellary	7,913	8,130	391,009	387,277	3,459	5,632
Kurnool	943	837	234,484	231,899	37,405	52,324
Madras	37	......	......	......	......	......
Chinglepat	36	66	72	38	15,347	17,381
North Arcot... ...	5,242	4,399	1,030	963	33,561	36,974
South Arcot	2,869	2,722	45,532	45,473	120,709	108,985
Tanjore	549	314	3,726	3,767	1,545	1,633
Trichinopoly	3,092	3,077	7,132	13,005	1,620	2,085
Madura	295	316	120,998	110,515	281	213
Tinnevelly	278	204	250,705	287,813	771	804
Coimbatore	2,429	2,483	142,237	178,660	......	45
Nilgiris	......	......	......	......	......	......
Salem	1,717	1,535	8,540	8,559	1,794	2,653
South Canara	862	783	......	32	......	......
Malabar	......	......	......	......	......	......
Total...	47,110	46,446	1,617,083	1,708,275	345,586	406,425
Government	26,867	25,990	1,031,761	1,083,273	276,625	314,926
Inam Lands	6,853	7,101	416,065	399,333	42,965	63,856
Zemindary Lands ...	13,390	13,355	169,257	225,669	25,996	27,643

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39. Compared with the preceding year there was a slight falling off in sugar-cane cultivation, while in cotton and indigo there was a large increase. The decrease in the former occurs mainly in the Districts of North Arcot, Ganjam, Godavery, and Cuddapah. In Ganjam it is due to the damage caused by floods which covered the land, usually cultivated, with sand, and in the other Districts it appears to be owing to ordinary causes, the land cultivated with the crop requiring rest. The increase under cotton and indigo is due both to the favourable season and to an improved demand for these products. The principal Districts in which there is an increase are named in the margin..

Cotton.

		ACRES.
1.	Tinnevelly ...	37,108
2.	Coimbatore ...	36,423
3.	Cuddapah ...	16,543
4.	Nellore ...	11,135
5.	Trichinopoly ...	5,873

Indigo.

		ACRES.
1.	Nellore ...	24,586
2.	Kurnool ...	14,919
3.	Cuddapah ...	10,192
4.	Kistna... ...	7,992

40. LAND REVENUE.—*Average Assessment per Acre.*—Subjoined is the abstract statement showing the average rate of assessment per acre cultivated in each District:—

Districts.	Dry.			Wet.		
	Extent.	Assessment.	Average.	Extent.	Assessment.	Average.
	ACRES.	RS.	RS. A. P.	ACRES.	RS.	RS. A. P.
1. Ganjam	107,836	1,38,186	1 4 6	178,141	5,16,324	2 14 4
2. Vizagapatam ...	49,957	53,416	1 1 1	24,256	1,28,007	5 4 5
3. Godavery	303,529	5,72,634	1 14 2	264,909	7,26,936	2 11 4
4. Kistna	1,452,849	20,93,743	1 7 1	169,867	6,68,349	3 14 11
5. Nellore	612,722	7,57,470	1 3 9	169,548	7,56,170	4 7 4
6. Cuddapah ...	1,141,183	8,71,898	0 12 3	102,279	6,99,468	6 13 5
7. Bellary	2,298,234	14,42,745	0 10 1	103,816	5,16,232	4 15 7
8. Kurnool ...	1,159,355	10,89,326	0 15 0	24,700	1,57,367	6 5 11
9. Madras.	......	......	......	......	......	......
10. Chingleput ...	188,408	2,73,657	1 7 3	256,140	9,57,005	3 11 9
11. North Arcot ...	396,383	5,56,059	1 6 5	189,845	10,93,811	5 12 2
12. South Arcot ...	815,384	13,95,671	1 11 5	269,619	14,46,730	5 5 10
13. Tanjore	249,005	3,11,459	1 4 0	716,649	35,20,016	4 14 7
14. Trichinopoly ...	689,680	6,67,977	0 15 6	129,768	5,47,695	4 3 6
15. Madura	653,211	8,57,544	1 5 0	139,613	5,89,776	4 3 7
16. Tinnevelly ...	884,362	7,30,781	0 13 3	158,098	15,56,232	9 13 6
17. Coimbatore ...	1,962,776	17,78,937	0 14 7	81,805	6,10,257	7 7 4
18. Nilgiris	47,638	24,984	0 8 4	40	90	2 4 0
19. Salem	1,085,138	12,55,850	1 2 6	85,753	4,83,711	5 10 3
20. South Canara ...	......	......	......	......	......	......
21. Malabar	393,952	6,16,427	1 9 0	386,610	11,64,489	3 0 2
Total...	14,491,602	154,88,764	1 1 1	3,451,456	161,38,665	4 10 10

NOTE.—Waste charged, second crop and additional assessment, and water-tax are not taken into account in the average.

In the Kistna and Godavery Deltas, the wet land is assessed as if it were dry land and the water is separately charged for. In the rest of the Presidency, a consolidated assessment is charged which takes the water-rate into account.

(To be continued.)

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MISCELLANEOUS.

THE SHEEP OF THE MADRAS PRESIDENCY.*

The sheep belong to the family *Bovidæ*—sub-family, *Caprinæ*—genus, *Ovis*—the specific scientific name being *Ovis Aries*.

Character.—Horns in both sexes, large, angular, heavily wrinkled, turned downwards almost into a circle, with their flat points directed forwards and outwards. No muffle; no beard; Chaffron convex; large but immobile eye, pits in some, wanting in others; small feet-pits in all feet; inguinal glands distinct; two mammæ.—*Jerdon.*

The common sheep is subject to great varieties, like most of our domestic animals, but all merging into one known to naturalists as *Ovis Aries;* and the wild sheep is said to be met with still in parts of Upper India and Europe. Blyth, an eminent naturalist, considers the fighting ram of India to be descended from the *Ovis Vignei* (Cycloceros). The history of the sheep is co-eval with the creation of man, and it is frequently alluded to in the Scriptures and other sacred writings. The lamb is considered the emblem of innocence. The immemorial custom of the East is still continued in India, for the shepherd leads his flock. Sheep differ greatly in their form, size, coating or covering, and weight, in the different districts of this Presidency, these depending entirely on the climate, soil, and pasture-producing powers of the localities in which they are bred. The peculiar conformation of the mouth of the sheep, the lips being protected by hair, and the cleft in the upper lip enable it to take a good close bite, much closer to the ground than cattle in general; and, for this reason, the sheep can thrive even on scanty pasture. The sheep is too well known to need any particular description, as a whole; but, we shall first review the different breeds or varieties met with in Southern India generally, and with that view begin with the Nellore District.

Nellore.—This district is famed for its large breed of sheep. The sheep of this district is the tallest in Southern India: a good specimen stands across the withers thirty to thirty-six inches in height, about the same in length from point of chest to end of tail, and, when well-fed and fattened, will weigh from 80 to 90 lbs., when alive. It has the usual form of twisted horns of moderate size, with a slight Roman contour of the face, and is rather leggy and tall—the rams generally exceeding the ewes in height by two or three inches. The prevailing colour is white or a light brownish-white with black points; the body is well covered with short fur (hair), with a light frill of hair frequently lining the throat and foreneck in the males. Some have two long rounded pendulous skins, from two to three inches in length, hanging side by side from the throat, which the natives term in Tamil "*munnie,*" literally "*bells.*" The hair about the posterior part of the thighs, from the tail to hook, is longer and thicker than in most other parts. The tail is short. The ewes are hornless. They are of the same colour: they milk fairly, and are good nurses. These sheep are active animals and make good travellers. The yearling lambs are brought to Madras annually in large numbers to be sold, and fetch, on the average, from 1 to 3 Rupees each. A number of old and barren ewes are also brought down for sale, realizing from 2 to $3\frac{1}{2}$ Rupees each.

Good fat wethers or pet-rams, in fair condition, ready for slaughter, fetch from 5 to 7, and the very best 10 or 12, Rupees each. Many of this breed of sheep are tall and lanky with no body or carcase of any size to show, and will scarcely weigh from 50 to 60 lbs., (live weight); but some excellent specimens are occasionally met with, having shorter legs, with a good sturdy form and a compact flesh-forming carcase: these animals will weigh from 60 to 90 lbs., live weight. It is from animals of this form that natives generally select their pets; and in this respect some of them are excellent judges.

The Madras sheep is well known. It resembles a greyhound with tucked up belly, having some coarseness of form; the feet light; limbs bony; sides flat; and tails short. It seldom exceeds twenty-two to twenty-eight inches in height. The horns are confined to the rams only, which, when the animal is well-grown, are generally of fair size, having the usual twist. These sheep have slight Roman noses, and large ears in some instances, and small pointed ones in others. They are covered with short, coarse hair, the prevailing colour being red or brown, of which there are various shades, and many have the "bells" abovementioned depending from the throat. The ewes are an inch or two lower than the rams; they make fair nurses and milk well. A variety of this sheep is sometimes met with, in which the rams are hornless, the throat and foreneck lined with a thick shaggy coat of hair, extending like a frill from the throat to the breast, and often reaching to the knees.

This Madras breed of sheep is found in the Chingleput, parts of the Kistna, Godavery, Ganjam, North Arcot, South Arcot, Salem, Trichinopoly, Tanjore, Madura and Tinnevelly districts. The only difference in any of these districts is that, in some places, where there is

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better and richer pasturage, the sheep may assume a better form, and they may even be an inch or two taller or shorter. With these exceptions, there is no other peculiarity whatever to be met with among this breed. In Ganjam and parts of the Godavery district I found the sheep mostly mottled, white and brown in colour. Neither the Madras, nor the Nellore breed already described, furnish wool or hair fit for textile purposes.

Coimbatore.—This district is famed for a breed of wool-producing sheep. They are, on the whole, a small breed, the rams seldom exceeding twenty-six, and the ewes twenty-two inches in height. The rams carry large twisted horns, whilst the ewes are hornless; the prevailing colour is white with a black head. Their carcases have a fair covering of wool, the staple being from four to five inches in length. The fleece of the best sheep seldom exceeds 3 lbs. in weight: it is more frequently 1 or 2 lbs. These animals, though small, have good sturdy forms, and fatten well. The fat mutton they turn out is exceedingly rich and well-tasted; and, when the sheep has been gram-fed, the flesh has been pronounced by connoisseurs in such matters to be equal to English mutton. The sheep of this breed carry good, square, compact carcases; and their weight ranges from 50 to 60 lbs., and very rarely 80 lbs., live weight. The rams fetch from 2 to 5 Rupees, and the ewes 3 Rupees each; but at the weekly fair at Coimbatore and other places, yearling lambs may be purchased at the average price of 2 Rupees or 3 Rupees apiece: but pet-rams in prime order realize from 5 to 10 Rupees each. This breed is generally imported into the Malabar district from Coimbatore.

Mysore.—A woolly breed of sheep exists throughout this province, which is fairly esteemed both for its mutton-forming and wool-producing qualities. The rams have large heavy horns wrinkled and encircled outwards, and their points inwards and forwards. The head is large and heavy-looking, with a prominent Roman nose. The ears are of moderate size and pointed, and the tail short, never exceeding 3 to 4 inches. The ewes are hornless. The prevailing colour is from a light to a very dark grey or black. The ram stands twenty-five inches, and the ewe twenty-three inches, in height. The ordinary live weight is from 40 to 60 lbs., but gram-fed wethers attain from 60 to 80 lbs. They have fairly compact carcases with good width, prominence and depth of chest; the body is well woolled and rectangularly formed; in picked specimens, the counter is full, and the shoulder is fairly filled, when in condition. The fleece never exceeds 3 to 4 lbs. and the staple averages three to four inches in length. An ordinary sheep fetches from 2 to 3 Rupees in the market, fat wethers 7 to 10 Rupees each. This breed furnish the chief fighting rams of Southern India, for which purpose good picked male rams are sought after by native Rajahs, Zemindars, and others. They are much petted and pampered till they grow quite savage; they will butt and strike with their forefeet; and I have also seen, in one or two instances, a propensity to bite. They are pitted against each other, and large sums of money staked on the result. In fighting, they run a tilt by moving backwards some short distance, to add force to the impulse of their weight; and frequently in the fight, they have their heads or horns broken. These rams, from special selection and good feed, often attain thirty inches in height and over 80 lbs. in weight. Size does not necessarily ensure success in the battle, as I have seen the largest ram of the kind, I remember ever having met with, run away after a few tilts from one that was very much smaller. All the breeds of sheep in Southern India are pugnacious and reared to fight, the preference always being given to the black woolly breeds of Mysore or to those of Coimbatore. This breed extends from Mysore to Bellary, where, after a time, the wool frequently changes into long lank hair. Mysore also exports its sheep to South Canara. These are the chief breeds found indigenous in Southern India.

As regards imported animals, a few of the *Heeratee* or Persian sheep are frequently imported into South Canara by Arab ships, and they are sometimes brought to Bangalore and Madras as curiosities by Arab-horse dealers. These are varieties of what is known as the *Dumba* or broad, or fat-tailed sheep, the caudal extremity forming a huge lump or mass of fat. Their tails, however, frequently give trouble: if not attended to carefully and kept clean, ulcers form; and the parts get readily infested with fly maggots, so that the sheep eventually die. The mutton from these animals is said to be coarse. A pair I imported from South Canara in 1870 died of the *scab* as soon as they got to Bangalore; and a lamb from these died of the rot when one year old on moving it from Bangalore.

I have lately been greatly interested in a four-horned sheep imported into Madras by Colonel Macaulay, Commandant of the 37th Grenadiers. This ram had not only four horns but a fat tail also, which was small, pear-shaped, and pendulous. The ram is now dead; but the Colonel succeeded in obtaining from him a couple of lambs, male and female, by a Mysore ewe. The young ram had also four horns; and his sister had two horns, which is unusual, as ewes are generally hornless in this country. Both the mother and the daughter afterwards had lambs at their sides by the young ram. These animals have all died since this paper was written, except the ram and a male lamb, both

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of which have four horns. I also have succeeded in getting a ewe lamb from the old ram now dead by a Nellore ewe. These sheep are large both in height and bulk of body, and are covered with a pretty good fleece of soft wool.

To return to the indigenous sheep of Southern India. The shepherd gives his sheep no particular care beyond that of pasturing his flock in the best grounds in his immediate vicinity. No native ever thinks of growing green food or of preparing fodder of any kind. In the day the animals pick up what they can from the pastures they are driven to; at nights their owners fold them in fallow fields or other open grounds, leaving the shepherd, with some three or four pariah dogs, to watch over them and to keep out intruding beasts of prey. The rams or tups are never separated from the ewes, nor does the shepherd ever think of weaning the lambs.

The ewes, as soon as they drop their lambs, are daily stripped of their milk. No selection is made as regards the serving tup being the largest animal, the preference being frequently given to the one with the greatest pair of horns, without regard to his size or conformation. Numbers of young rams also, from one to four years old, continue to roam among the flock. The shepherd never thinks of gelding his young rams; this operation being left to the butcher or others, who purchase a few and convert them into wethers with a view to subsequent sale. Ryots frequently purchase a lamb to make a pet of, but when it has grown fat, they sell it to the butcher. The mode of castration is conducted by drawing the testicles between two wooden rollers, that are tied together at one end, and passed between the scrotum and the abdomen of the sheep, when the other ends are tied. Against these the glands are pressed to break them, and then they are crushed into a pulp with the fingers. More frequently, both the glands are drawn between two pieces of a bamboo slit in two, and tied together at either end; and the glands thus tied are rested on a stone, and with a second stone they receive a strong blow which breaks them up within the scrotal sac. They are then pulpified with the fingers; the part is smeared with a little cow-dung, and the animal is let loose. This operation is never practised till the sheep has shed either four or six of its milk-teeth and replaced them by permanent incisors. Frequently, the operation is never thoroughly completed; as a rule, a portion of one or both glands continues unabsorbed, and the sheep has thus not been fully emasculated. It retains much of its masculine form and its horns even may grow at the same time. I think this method of castration preferable to any cutting operation, as I have lost 50 per cent by the cutting process and have given it up as a hopeless job after trying the heated iron, saw, ligature and clamps to divide the cord. On the twelfth day, to a certainty, the animals operated on get tetanus or lock-jaw, and are dead by the fourteenth or fifteenth day; any medical treatment proving of no avail whatever.

The native shepherd or proprietor of sheep never, as a rule, supplies his sheep with any artificial or other food, green or dry, beyond what the animals can pick up at the pasture-grounds; thus, during the dry season, they are frequently brought very low from the want of pasturage, and the "*rot*" attacks the flocks and kills a great many. During the north-east monsoons, flocks of sheep suffer much, the sharp east winds being inimical to their health, and thus numbers die. The shepherd never thinks of housing his sheep at nights at any time of the year; but he will, from practical experience, drive his flock to ground where he can take advantage of rocks, hedges, trees or houses in the vicinity, so as to protect them from the cutting east winds: he there folds them for the night on high and dry grounds; and, with this object in view, he resorts to all sorts of shifts. I don't believe that, as a rule, he obtains more than one lamb annually. According to my experience, I have invariably obtained three lambs in two years, and should the first lamb dropped prove to be a ewe, she produces a lamb before the end of the second year; and thus the produce is four instead of three lambs in two years. I have not seen twins yeaned in any part of India, except Orissa, in the vicinity of Cuttack, where a small breed of sheep is met with, which the natives call "*Dessi*," or country sheep; these, I believe, mostly yean two lambs at a time. A ewe carries her young for five months.

There is a large meat-eating population in India, as, exclusive of Europeans, all Mahomedans and most Hindoos are mutton-eaters; and where procurable, the Mahomedans, and the majority of Hindoos, will eat meat daily when in a position to do so, in large towns; but to those resident in villages, it is a great luxury to have a meal of meat once a year, perhaps at the Pongul Feast, or when some vow is made and a sheep is offered as a sacrifice to some one of their numerous deities. This frequently occurs at the Dussera, or ten days' festival. Again, many natives, even in towns where meat is procurable in the bazaars daily, will only use it once a week, fortnight, or month. Goat's meat is more largely consumed than the flesh of sheep, and the majority of natives prefer size to quality, no matter how old and tough the animal, so that it is of large size. Sheep-mutton is procurable in most towns at 2 Annas the seer of ordinary, and 3 to 4 Annas the seer of fat, mutton; the native seer being nearly equivalent to $1\frac{3}{4}$ lbs. avoirdupois. The

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ordinary Indian sheep seldom exceeds 50 lbs. in weight, and the mutton ranges from 20 to 30 lbs. In most districts, a fairly fat sheep from the flock can be bought for 2 or 3 Rupees apiece; in the Madras sheep-market, at Perambore, any number of ordinary sheep can be purchased at prices varying from $1\frac{1}{2}$ to 3 Rupees; and fat sheep fit for the table from 7 to 10 Rupees apiece. The average weight of a good well-fed wether should be 60 to 80 lbs., when the mutton turned out ranges from 35 to 50 lbs. I fear few animals at present turn out a larger proportion of mutton; but it can be done if proper attention and feed be given to the animals. Any one who may have observed sheep at pasture must have noticed a certain amount of restlessness in them, and that they strike their feet on the ground occasionally. The natives believe this to be caused by a worm in the foot; and under that impression, they cut out the feet-pits of which mention has been made above, from both forefeet, and they pompously parade the excised portion as the *poochee*, or insect, without the extraction of which the animal is not supposed to fatten well. This operation is only practised on pet-lambs, but I have not seen any evil result from the practice.

The best breed of sheep indigenous to the country are the woolly varieties, which, however, are open to great improvement. With care, due selection, and attention to stock, the Coimbatore and Mysore breed of sheep can be got to produce both wool and mutton of a superior quality.

I have crossed the Madras ewes with the Merino ram and obtained some good lambs. The progeny showed all the make of the carcase of a well-bred Merino: there was no wool; but a coarse mixture of wool and hair took its place. When I was leaving the district, I sent my little flock of twenty-five animals to Palmanair to a friend, but before many months they disappeared. I was told that the majority died, and that the others were eaten. I have now a half-bred English ram with which I am crossing the Madras, Coimbatore, Nellore, and Mysore ewes with a view to improvement; and the result has yet to be ascertained. I have a few promising lambs left; I kill the male lambs annually, and only retain the ewes. In breeding sheep great attention should be paid to the rams, as their influence is great, and their progeny, in a year, are very numerous. A well-cared-for ram will serve from sixty to eighty ewes and even a hundred, if he be not let loose among the flock to exhaust his energy. The ewes, when in season, should be held to him at his crib; and, in this way, he could be got to serve a much greater number of ewes without detriment either to himself or his progeny. It is a mistake to search for superior gimmers or ewes to breed from. As the flock increases in number, the deformed, barren, and otherwise mis-shaped ewes should be weeded out, retaining only the best. The male lambs should be selected and separated from the flock, the best and most promising retained for breeding purposes, and the others converted into wethers and fattened off as they attain the age of about two years. It is a very simple matter to write down rules, but it is most difficult to carry them out in practice. The natives are so stubborn and obstinate in some of their notions, that it is difficult to get them at first to carry out orders without constant personal supervision; the master's eye should always be present, and he should look to everything himself. Few people in India ever take an interest in the improvement of the breed of sheep. All they care for is their mutton; and with that view they will get together a number of sheep of any breed and gram-feed them. In former years, before the present disorganization of native regiments took place, nearly every regiment supported a mutton-club; and frequently there was a station-club also in most districts; but those days are gone by, and a mutton-club now is a rarity.

The Madras sheep is not a bad animal to furnish mutton, and when it is crossed judiciously with either the Coimbatore or Mysore ewe, some first-rate animals are turned out. I have recently seen crosses between Nellore sheep and the woolly sheep in the Kistna District; between the Madras ram and the Mysore ewe in the Poonganoor zemindary; and between the Madras ram and the Coimbatore ewe at Sunkerydroog in the Salem District. These animals were of good large size and form, and were covered with a shaggy coat of hair and had very good carcases; the only fault I had to find with them being that they were much too short in the body. By attention and due selection, improvements can be carried out in this direction also. Few people, however, care for such matters, and no permanent good can be effected by any single individual, especially as the stay of the few Europeans who take an interest in sheep-breeding, terminates in India with their service, and they are not pecuniarily interested in them. The day is distant, therefore, when intelligent and well-educated natives of the country will take an interest in sheep-breeding, and appreciate the advantage of high-farming and stock-feeding, growing special food, and maintaining good pasture-lands for their flocks and herds. This cannot be expected, I fear, when a good sheep from the flock can be had for 2 or 3 Rupees, having cost the shepherd nothing beyond the care necessary to protect them from the ravages of wild beasts and to prevent them from straying. Many of the country grains are exceedingly cheap, and, if cooked, would

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form first-rate food for fattening sheep. My own personal experience, in this respect, is limited to the *varagoo, panicum, miliaceum*, or little millet and oil-cake either of the gingelly-seeds or ground-nut. Cooked food is very nourishing, and the animals partake of it with great relish; and it is, moreover, very fattening. I believe that during the season the little millet is the cheapest grain procurable in most districts, and, as regards green food, the *Aghati* is the best—*Aghati grandiflorum*, which is not only readily eaten by sheep, but possesses good fattening properties. I wrote a paper on the subject some years ago, which will be found among the Proceedings of Government. I much regret not having a copy of that paper as well as my inability to give its date. Natives generally use the Aghati, Jack, and Peepul leaves to feed their pet-sheep with. The Aghati can be readily grown. It is now largely grown as shade-giving trees in every betel garden in Southern India. Sheep, in its semi-wild state, when first brought from the fold will not even eat cut-grass; but when tamed, the sheep becomes almost omnivorous and will eat all kinds of leaves, hay, grain, oil-cake, &c. All our domestic animals require to be taught to eat food they have not been accustomed to, or they will starve to death.

I have long been interested in endeavours to improve the indigenous sheep of the country; and, with that view, I have personally examined the sheep of every district in this Presidency. I have never visited Travancore, and cannot say anything about the sheep of that territory. In my opinion, first the Coimbatore, and second the Mysore, are the best breeds to improve. It is quite possible to improve both the mutton and wool of these animals; but, at the same time, it must be said that these sheep do not thrive in all districts. Under these circumstances, they should be crossed with picked sheep of the Madras breed, among which some sturdy animals with good carcases are met with; and thus their mutton-forming qualities can be improved, while the value of the woolly breeds can also be improved both as regards their mutton and wool.

Sheep are delicate animals and suffer much from the heavy rains, and the north-east winds kill them readily if much exposed to them. They should be put under cover during the wet seasons; and during the hot dry weather, some green food should be expressly grown for them. Owing to the neglect they experience, sheep suffer from a variety of diseases in this country. The native shepherd knows of no treatment, nor does he understand the isolation of the sick from the healthy. He sometimes resorts to charms and incantations and ceremonies to remove the "evil eye." His two most potent remedies are the hot or firing iron, and amputation of the ears. The hot iron is a panacea for most diseases; and, whilst admitting its efficiency in many diseases, yet, I think, the natives use it most unmercifully and unnecessarily. Amputation of a portion, or of the whole of the ear, is not a bad practise; but this remedy also is resorted to indiscriminately. It is not my intention to write an account of the diseases of sheep: but I may state that I have contributed several papers on the subject, all of which have been published in the Proceedings of Government. I may here casually refer to one, the most important, of a very common and prevalent disease at certain seasons of the year, known as the rot—*sheep rot*. I have given a very full account of the disease with cases and *post mortem* examinations, which will be found among the Proceedings of the Madras Government, Revenue Department, 13th July 1864, No. 219.

TOBACCO—ITS HISTORY AND CULTIVATION.*

(*Continued from page* 281.)

V.—Australia.

In Australia the cultivation of tobacco has been making great progress. The plants are grown in deep, loose, and naturally rich soil, to enable the young and delicate plant to sustain its rapid and luxuriant growth. Naturally rich lands are selected for the purpose, and when such is not available, artificial means are employed to secure a good crop. The rich alluvial flats in the vicinity of rivers and creeks are taken advantage of for the purpose, and it is from such localities that excellent returns have been obtained. Stiff clays on the one hand, and poor sandy soils on the other, should be avoided; the former being too retentive of moisture in wet weather, and apt to bake hard during the summer, whilst the latter needs too much manure to render it fertile, and is, besides, too dry. Medium soils will require much manure. Bone dust, guano, and stable manures have proved themselves to be highly valuable as fertilizers for tobacco fields. A proper spot having been selected, and, where necessary, improved by manuring, draining should then receive attention, as the tobacco plant suffers readily from excess of moisture, or stagnant water. The land should be ploughed up to a depth of eight or twelve inches, and the soil loosened by the subsoil plough, so as to loosen it thoroughly to a depth of eighteen or twenty inches, in stiffer kinds of soils. New lands should always be broken up a season before

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planting, and allowed to be in a rough state, and exposed to all the influences of the weather until the following spring, when a second ploughing will be found highly beneficial. All clods should be carefully crushed and the surface well harrowed and prepared for the reception of the plants. Whilst the land is under preparation, nursery beds have to be formed in some well-protected or sheltered locality, which is best dug by hand, and finely raked. It is advisable to erect a frame over these, so that they can be covered over with calico or branches during very hot or very cold and wet weather. Calico, though more expensive, is nevertheless preferable, as it also affords shelter against the often very heavy and continuous spring rains, which, if allowed to fall on the tender seedlings, might damage or, at least, retard their growth. The seeds are very fine, and two or three ounces are sufficient per acre. They should be thinly sown and but lightly covered with soil. The beginning of September appears to be the best time for sowing the main crop. A second sowing may be effected towards the end of that month or the beginning of October. The young plants, under favourable circumstances, appear above ground in about three weeks; they are allowed to grow undisturbed until they have made three or four full leaves, proper attention being paid to them in the meantime to water them if required, to handweed and thin the plants out if, by unequal sowing, they should be anywhere too thick. The plants having attained sufficient size, as stated above, advantage should be taken of dull and rainy days, during which they have to be transferred to their permanent places in the field. They are carefully lifted from the seed bed, so as not to break the tender roots, singled out and planted in the same manner as cabbage plants. Particular care is required in planting not to twist or damage the main or tap root, which should be dropped perpendicularly into the ground. If dry weather sets in after planting, the plants ought to be watered occasionally, until by their renewed growth they show that they are established. Four feet from row to row is generally allowed, whilst, except perhaps for very large growing varieties, a distance of three feet in the rows will be found sufficient. Planting operations may be carried on (during favourable weather) in November, and even up to Christmas; but early planting is always to be preferred, the plants being established before the hot summer checks their growth, whilst besides, a second, and in exceptional cases, even a third crop may be obtained from such plants. The latter, after they have made some fresh leaves, are earthed up at their base, and the space between them has to be kept loose and free from weed by occasional hoeing. Once established, they generally grow very luxuriantly, and form from eight to ten or more leaves before the flower buds appear. These and all the lateral shoots, which may be formed, are carefully broken off as soon as they show. The plants thus require a frequent examination, which, even before, is necessary for the purpose of collecting and destroying a caterpillar which generally infests tobacco plants, and which, if not early removed, endangers the whole crop, as these pests will not only devour the heart of the plant, but also eat away large portions of the leaves already formed, rendering them thereby almost valueless. The leaves will, under proper treatment, rapidly increase in size and substance; their colour is fine dark green, and their freshness sufficiently denotes the luxuriance of the plant. By degrees, however, the leaves cease to increase, their colour becomes duller, yellowish spots make their appearance, and the best sign of their ripening—a gummy substance exudes from their surface and makes them feel sticky. Experience alone can guide us in regard to the proper season when the harvest should commence. Though it is not advisable to defer it too long, it is nevertheless better than to commence too soon, as the quality of the leaf depends, in a great measure, on its ripeness. In harvesting, the whole plant is cut off close to the ground, and allowed to remain there for about twelve hours. The evening or morning hours should be chosen for that operation, in preference to the middle of the day. The plants and leaves thus cut and exposed soon lose their stiffness and are less liable to be damaged in being brought to the drying shed. Arrived there, a slit is made in the thick end of the stalk, through which a thin rope or stake is pushed by means of which they are hung up to dry. The latter should be effected in the shade, and very slowly and gradually. If dried too rapidly, they do not get the proper colour, and greatly lose in quality and value. Six to eight weeks, or even more, are necessary for the drying process. All large plantations require special drying sheds, barn-like houses having windows provided with shutters, to regulate the admission of air, in the sides, and stages in the inside, on which the strings with tobacco are fastened. The tobacco is placed close together without actually pressing the single stalks against each other, which might cause their heating or getting mouldy. The green colour of the leaves gradually changes to a more or less dark brown; they become thinner and leathery, until at last, having thoroughly dried, they get brittle, and crumble to pieces if carelessly handled.

During damp weather, when they are less liable to be damaged, the stalks are taken down, and the leaves stripped off and assorted, all the worm-eaten and soiled or otherwise inferior ones being kept separate. The leaves are tied by their stalks in conveniently-sized

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bundles, and packed up in baskets or otherwise made ready for market. Some growers submit the leaves previously to fermentation; but as this requires special attention and experience to determine when it should cease, or at least be interrupted, and as the value of the leaves greatly depends on the performance of this process, it appears to be much wiser to let it be performed by the manufacturer, whose business it is to prepare it for the various purposes for which tobacco is used.

The roots of the plants, which were cut down, soon send up several fresh shoots. The strongest one is selected and allowed to grow, and treated in the same manner as mentioned above, so as to secure a second crop, which generally is obtained from all the early planted plants. A third crop, though of inferior quality, may occasionally be produced, but this has rarely time to ripen sufficiently. The leaves of the latter, and the lateral shoots broken off during the growing of the first and second crops, may be mixed together to serve as sheep-wash or other inferior tobacco.—*Australasian.*

VI.—India.

In Behar, tobacco is cultivated to some extent. The ground is prepared by free ploughing, and the clods are well crushed and opened out frequently to permit the dew to act upon the soil, especially during the cold months of the year, when the dew falls very heavily. The land is often allowed to lie fallow for a whole year, being kept free of weeds and manured with the usual dunghill rubbish, consisting for the most part of cattle manure and wood-ash. The sowing season commences in the beginning of June. The seeds are put down in duly prepared beds, and, when the seedlings have attained a height of three inches above the soil, they are transplanted, and placed at a distance of eighteen inches from each other. The soil is kept free from weeds, and about the month of September the leaves attain maturity. The first crop is cut and thrown aside for curing, and the second crop allowed to succeed. The stalks, left on the field, push out new shoots, and from this the second crop is realized and prepared after the same manner as the first; the stalks are then allowed to run to seed.

The produce of a Begah* is equivalent to twenty maunds† from the first crop and fifteen from the second: sometimes a third and fourth crop are taken off successively, when the third yields ten, and the fourth five maunds. The price rises according to the season and demand.

1st sort	Rupees 3	to 5	per Maund.
2nd „	„ 2	to $3\frac{1}{2}$	„ „
3rd & 4th sorts	„ $1\frac{1}{2}$	to $2\frac{1}{2}$	„ „

1. *Nagpore.*—The large and celebrated town of Bhilsa, situated in latitude 23° 35″ north, and east longitude 77° 58′, chiefly supplies the province of Nagpore with tobacco, and the cultivation is caried out much in the same way as at Behar. The soil is said to be a ferruginous, sandy loam, abounding in minerals, to which the tobacco owes its superior excellence; but, at Nagpore itself, it is cultivated in small patches for local consumption, when the backyard or compound of houses is the chief place brought under cultivation. At other times, this spot forms a receptacle for refuse of all kinds, wood-ashes, cattle manure, &c., &c., and at the time of culture, frequently receives a further supply of wood-ash and cattle manure.

2. *Orissa.*—In this province during the season almost every ryot cultivates tobacco in the backyard of his house, the culture being carried out in the usual way. I found during my travels in Orissa, tobacco extensively cultivated in small patches in every village, intended solely for individual or village consumption.

The Ooryas are great smokers, men, women and children smoke, using a leaf for a pipe, which they fill with tobacco and carry about their persons.

3. *Northern Division of Madras.*—Various villages in this division including the districts of Kistna, Godavery, and Ganjam are highly extolled as tobacco-producing places, the chief of which are along the low sandy flats at the mouths of the Kistna and Godavery. Tobacco is also cultivated on a small scale in the compounds of houses for village consumption. The town of Masulipatam is in this tract of country, where the renowned Masulipatam snuff is manufactured, and on the islands formed by the mouths of the Kistna, the soil is richly impregnated with iron, and frequently silted from the deposit of rivers, abounding in alkalies, to all of which the soil owes its fertility; the tobacco produced here is termed "Lunka." The mode of culture is the same as practised elsewhere, and the species is the *Nicotiana rustica.*

The seeds are sown in October and transplanted out in November or early in December, according to the growth and vigour of the seedlings as they attain a height of three to four inches. The ground into which the tobacco is lifted is generally of a red ferruginous, or white and gray soil, which is prepared by repeated ploughings with the free addition of manure. The seedlings are put out at about one foot apart, and watered from earthen pots by hand and not by streams as is usual in other

* One-third of an English acre.

† A maund in Behar is equivalent to 3,200 tolas or 3,200 rupees' weight.

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districts. The plants are stopped as soon as the blossoms begin to appear, and in February or March the crop is reaped by being cut from the stems at the level of the soil, when they are collected and heaped up on the field and covered with straw or palmyra leaves. They are taken up in the course of a few days and tied up in bundles and hung up to dry in a shed for a fortnight. They are then taken down, the leaves separated and tied into bundles of ten or fifteen leaves each. The bundles are again heaped up and covered with straw for three days, and this process of heaping and unheaping is carried out several times, so as to give the required colour and flavour to the tobacco, when it is ready to be disposed of to the merchant. At best, tobacco cultivation is looked upon as a laborious and precarious occupation.

4. *Coimbatore.*—In this district tobacco cultivation begins about the middle of August, and is continued to the same time in October; the ground selected for the nursery is well and repeatedly turned up by the mamooty, or is freely ploughed up and squared into beds of 4 × 4 or 4 × 6 feet, and into these beds, after they have been well manured by wood-ashes and dunghill rubbish, the seeds are sown at three or four successive intervals of about ten or fifteen days each, so as to secure a succession of seedlings. The seed is sown and covered over by the hand, and the beds are sheltered from the sun by being covered with cut bushes till the seeds sprout up fairly. They are freely irrigated daily for the first fortnight or three weeks, and then once in every three or four days, according to the season at the time.

The preparation of the field for the transplantation of the tobacco seedling also commences about the same period; it is not only freely ploughed and manured, but cattle and sheep are frequently folded on them to secure their droppings, and it continues to receive several successive ploughings till the plants are ready to be lifted out, when the soil is levelled, the clods crushed and divided into square beds of 4 × 4 or 6 feet, or into trenches of proportionate length and breadth.

The fields are now freely watered, and immediately after the plants are taken up carefully from the nursery, and put down into the soft mud formed by the water at distances of two feet apart, successively, according to the different sowings, and, generally, of an evening (the plants are transplanted). In about a month from the period of transplantation, the fields are freely weeded and the soil loosened with a hoe and heaped around the stems of the plants. About the end of the second month the plants will have attained a height of from two to three feet, according to the richness and fertility of the soil, when the terminal shoots are broken off each plant to arrest their further growth. Each plant will then contain from ten to sixteen leaves. Care is now taken to break off the side shoots as they appear; and in four months from the date of transplantation, the crops will be ready for the sickle, when the plants are watered, and soon after cut down close to the surface and allowed to lie on the field till the next day. They are then taken up and tied into bundles by their stalks, and hung up about the hedges till the leaves become dry. In fair weather, this occurs in about ten days; but should the weather prove cloudy, it takes a fortnight. They are then taken up and heaped together and covered over with straw or cut-bushes, and weighted with stones for four or five days. After this they are stripped of their stalks, and the leaves tied into bundles by their leaf-stalks, and heaped up, covered and weighted for another five days; when they are again taken up and sorted, according to the different sizes of the leaves, tied into small bundles, and heaped and weighted for another five days; when the heaps are again opened out and re-packed and continued on for a further period of five days, by which time the leaves are said to be cured.

The produce of an acre is estimated at 500 lbs.

Tobacco from the taluks of Coimbatore, Palladum, Cheyoor, Danankencottah, Chukkaragherry, and Pullachy, is much appreciated by the natives as possessing superior qualities, and is exported to other districts. The villages in these taluks are situated in alluvial plains. Large quantities of tobacco from these places are exported to South Malabar and Trichinopoly; and in the last station, such tobacco frequently comprises the famous Trichinopoly cigars. The superiority of the tobacco produced in this district is, in a great measure, attributable to the richness and suitability of the soil for the culture of the plant, and to its being irrigated from wells containing much nitre, as well as to the fact that greater attention is given to the cultivation.

Tobacco deteriorates from scarcity of rain, or water from wells, cloudy or foggy weather, and easterly winds. Should the irrigation, at the time the plants are stopped, prove insufficient, the plants are injured by the roots throwing out a white fungus resembling asparagus, which is recognized by the natives as "*Oosilan.*" This has the effect of arresting the further growth of the leaves and injuring the quality of the article itself; and, should the weather prove unusually dry, the leaves get spotted, a species of scald, which is recognized by the native name of "*Poryan.*" This scald injures the plant materially should the weather prove sultry at the time the plants are stopped; or should the east winds continue to prevail, the leaves become

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white and are completely spoiled. The blight is known by the term of "*Sambal*" in Tamil. The abolition of the monopoly of tobacco in Malabar in 1858 has been the means of extending this cultivation greatly in Coimbatore.

5. *Trichinopoly*, a town in the Southern Division of the Presidency of Madras, is greatly famed for its tobacco and cigars. The method of culture adopted is much the same as that pursued in other parts of India.

The tobacco in some parts of this district is known by the Tamil name of "*Samudali*." The soil selected for the purpose is alluvial, on the banks or immediate vicinity of rivers, or even tank beds, and is of a dark brown or blackish colour, frequently containing much silt. About the middle of October and November land is selected and prepared for the nursery. It is ploughed or well turned up with the mamooty, and manured freely with wood-ashes and dunghill rubbish. The ploughing or digging, according to the size of land, is now repeated several times, and the clods are crushed and divided into beds, 4 × 6 feet each, when the land is ready to receive the seeds.

The seeds are, owing to their minuteness, mixed with twice their bulk of ashes or fine sand, and are then scattered over the beds. The seed beds are watered by hand and covered over with straw, date leaves, or cut-bushes, for four or five days, and then removed. In the course of the week the seeds commence to sprout. The beds are daily irrigated till the plants are old enough to be transplanted. In the meantime the field, for receiving the nursery plants, is prepared and laid out, and the plants put out on attaining three to six inches in height at the distance of two feet apart. They are freely watered daily, the soil is freed of weeds and kept clean. When the plants attain the height of two feet, the tops are pinched off and the side shoots removed, as they appear—ten, twelve or sixteen leaves being left on each plant in proportion to their size, vigor, and luxuriance. About May or June the crop is ready to be harvested. The plants are then cut close to the soil in the afternoon and allowed to lie on the ground. The next morning, they are taken up and stacked into a heap with their stalks uppermost, and are covered with straw. At sun-set they are taken up and laid out again and exposed on the field to the night dews. This process is repeated for four or five days successively, and then the crop is removed to the ryot's hut, where it is suspended by a rope to dry in the shade till the stalks becomes dry, which takes about a month, when it is termed raw or uncured tobacco. The curing now begins: the tobacco is heaped up and covered over with straw or cocoanut leaves, and kept for a fortnight to sweat, when it is turned up so as to reverse the position of the plants, and so kept on for another fortnight, when the leaves are sorted and made up into bundles.

6. *Tinnevelly.*—In this district a blackish loamy soil is selected for the cultivation of tobacco, which is prepared and manured in the usual way, but sometimes it is grown in all sorts of soil except clay or sand. Seeds are sown in well prepared nursery beds and planted out into the fields at the proper time. The further cultivation or growth and cure of the tobacco is much the same as that practised in other districts. Palmyra jaggery water, mixed with a decoction made from the stalks of the tobacco, is frequently used to prevent brittleness, and to keep the cured tobacco leaves moist. The produce of an acre will average, in a fair season, from 900 to 1,200 lbs., the market value of which will be about 100 Rupees, at the rate of one *Pody* or 168 lbs. for Rupees 15-8-0; and the cost of production will be about Rupees 50 the acre, returning a profit of cent per cent to the cultivator.

7. *Cuddapah.*—Tobacco is cultivated in this in much the same way as in other districts. Garden soil of a light sandy loam is preferable: the richer the loam the greater the produce. The cultivation begins about the middle of June or July; and the usual process of free ploughing to the depth of ten to twelve inches, and removal of weeds, is carefully carried out; and the soil is allowed to continue fallow till required for planting. The manure is the same as that in use in other districts, the quantity used varying from twenty to thirty cart-loads to an acre. Cattle, sheep, and goats are penned in the ploughed ground at an average rate of three to four thousand head per acre, and the land is levelled smooth, and drawn out in trenches and ridges successively. On either side of the ridge the young seedlings are planted out at the distance of two feet apart either way, and are freely watered according to the season. The refuse from the indigo vats, when available, is strewn along the trenches as manure when the plants are about a month old, and the trenches are flooded to promote putrefaction and absorption of the elements to enrich the soil. The plants are stopped to the usual height and pruned of side shoots. When four months old, the leaves give evidence of approaching maturity by getting spotted with brown; and in the course of the next month or six weeks, these spots increase in size and depth of colour, when they are ready to be harvested. They are watered to render them succulent, juicy, and sweet, before being cut down. The subsequent treatment of the cut-tobacco is much the same as that practised in other districts for curing it. Good tobacco is of a dark greyish colour, and is sold by *Putties* of twenty maunds each, one maund being equal to 25 lbs. avordupois;

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and a putty of 500 lbs. fetches from 35 to 45 Rupees in the market according to quality. Seedling tobacco plants are grown, as usual, in nursery beds and sold to ryots, who purchase and plant their fields with them: a square bed of 2 × 2 feet of growing seedling plants from 6 to 8 inches in height, fit for immediate transplanting, will fetch from 1 to 3 Rupees, and an acre would cost about 16 Rupees for seedlings to plant it with.

8. *Chingleput.*—In this district the cultivation of tobacco extends over a period of four months, and is carried out in the following manner. The seeds are sown in seed beds late in the month of December, and the tobacco is gathered early in April. The beds are square, and sometimes receive the seeds before and sometimes after being irrigated. They are carefully prepared for the reception of the seeds by free digging and turning up of soil, as small seeds like those of tobacco require a rich thoroughly prepared surface soil, to save the loss of a large proportion of seeds; for it is necessary that the soil next the seed contains the necessary supply to the plants as they sprout; consequently tobacco requires nursery beds: indeed it is difficult to grow them otherwise. A well sheltered locality is always chosen, a manure consisting of equal parts of wood-ashes and dunghill rubbish is thrown into the beds, and small narrow parallel trenches are then dug about a foot wide, with intervening ridges of the same breadth. When the seedlings have attained a height of from three to five inches, and have put out three or four leaves, which they do in about twenty days, they are ready for transplantation. The trenches are previously filled with water and the seedlings planted on the top of the ridges at the distance of fifteen inches from each other, and for the first three or four days are irrigated daily, after which irrigation is practised every second day throughout their growth. About fifteen or twenty days after transplantation, the weeds are scraped off the land, either with a cocoanut shell or an iron scraper. In about a fortnight after this, the soil is loosened and the weeds exterminated. Advantage is taken of this opportunity to complete the stand of plants by filling up the gaps left by the failure of some plants, and the accidental destruction of others, irrigation being practised as usual. At the commencement of the third month, a second hoeing or loosening of the soil, and a further extermination of the weeds, are practised; and some two or three days after this, the side shoots, which have begun to show themselves in the axilla of the leaves, are removed by being broken off; and about the end of the third month, when the stand of plants has attained a height of about two or three feet, the tops of the bushes and all superfluous leaves are pinched off, leaving to each plant some ten or fifteen of the best shaped leaves. The plants throughout their growth are subject to attacks from caterpillars, which should be looked for daily the first thing, picked out, and destroyed. When the plants have become ripe, which they do at the end of the fourth month, the leaves become speckled, and frequently crackle between the fingers. At this period, if the plants have grown well and luxuriantly, the average size of the leaf is from twenty-five to thirty inches in length, and five to seven inches in breadth. The plants are then cut down, leaving a couple of inches of the stem in the ground, and are allowed to remain on the field to dry. In the evening they are gathered and stacked into a heap in some open place for the night. When the tobacco plants are cut down, the stumps left in the soil soon throw out fresh shoots; and these, if carefully weeded and watered, thrive well, and the produce thus obtained will realize one-third the value of the original crop. The tobacco from the second crop is greatly inferior to the first in quantity and quality; and, consequently, it deteriorates in the market.

The produce of one *cawnee* of land is about 350 *thooks* of tobacco, a *thook* being equivalent to 3 lbs. and 10 oz. avordupois weight.

The attendant expenses are:—

		RS.
For ploughing the land	... ...	14
„ Watering, weeding, &c.	...	15
„ Land rent	... ...	5
Rupees...		34

The value of the produce of one cawnee, viz., 350 thooks of tobacco, is estimated at 150 Rupees; from which, if we take 34 Rupees, and allow 16 Rupees for contingent expenses, a clear profit of 100 Rupees remains to the cultivator. The seeds are so minute and numerous, that three to six ounces suffice for planting a cawnee of land, the price of a pound of seeds being 8 annas. One tobacco plant produces 360,000 seeds.

(*To be continued.*)

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